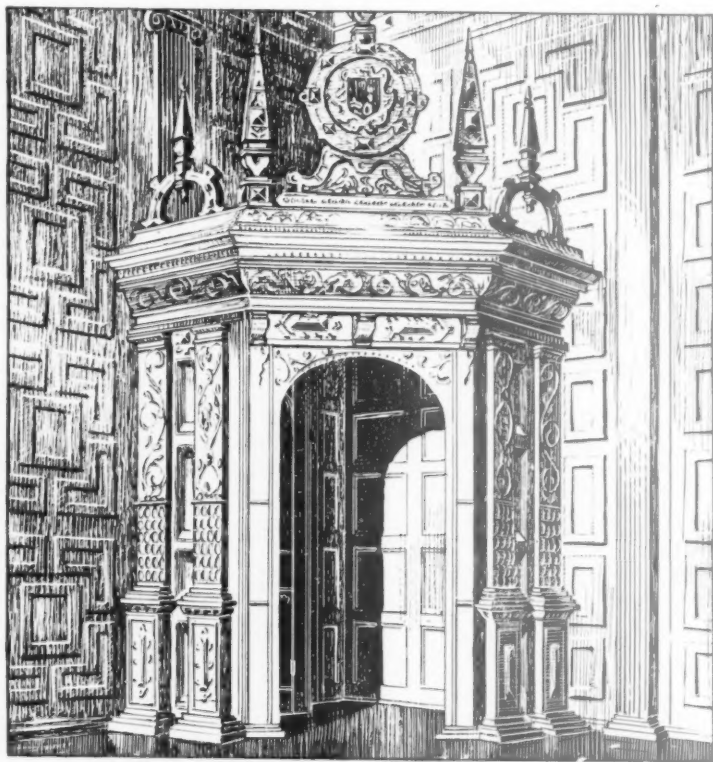


THE
ARCHITECT
& BUILDING NEWS

IN THIS ISSUE

- EDINBURGH MEDICAL SCHOOL COMPETITION RESULT
- 70, PICCADILLY, W.1
- LIBRARY NOTES

FEBRUARY 9, 1951 • VOL 199 • NO 4286 • ONE SHILLING WEEKLY

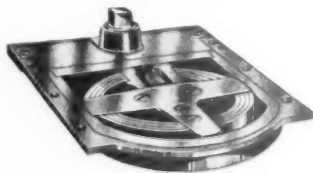


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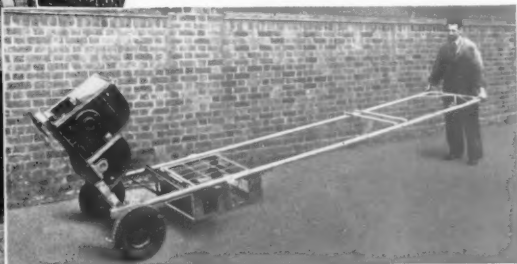
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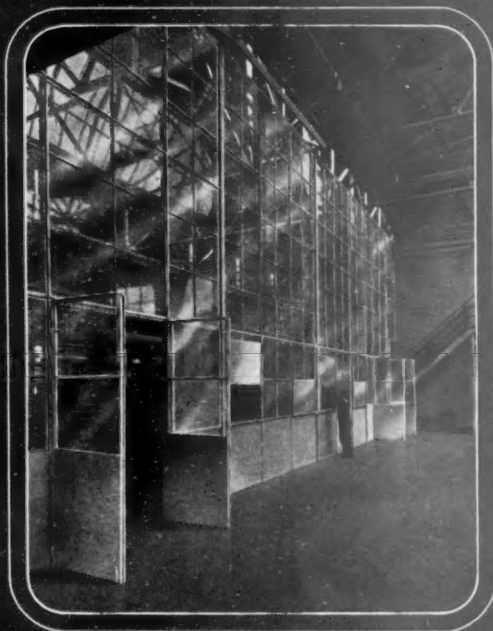
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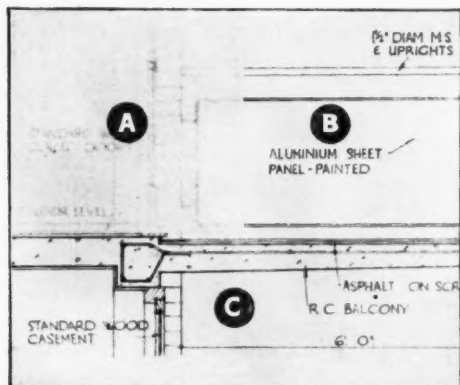
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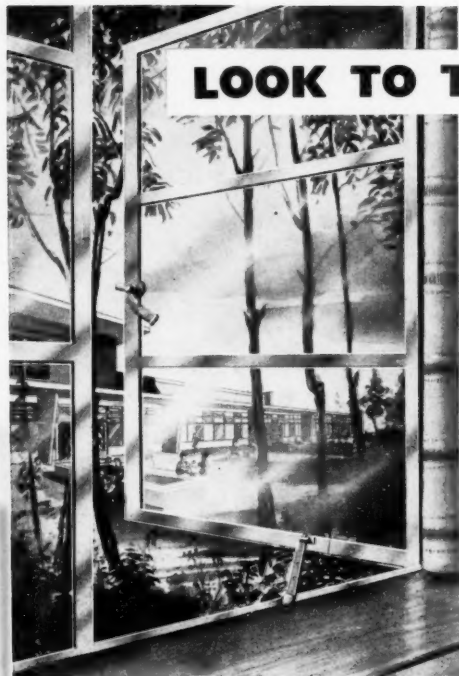
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MARLITH

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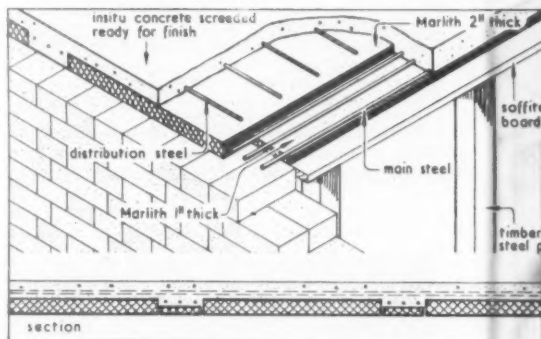
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THE PHOTOGRAPHS were taken at Whitby Junior and Infants School, and show: *below*, MARLITH slabs being placed in position in the temporary steel tees; *above*, concrete being levelled.

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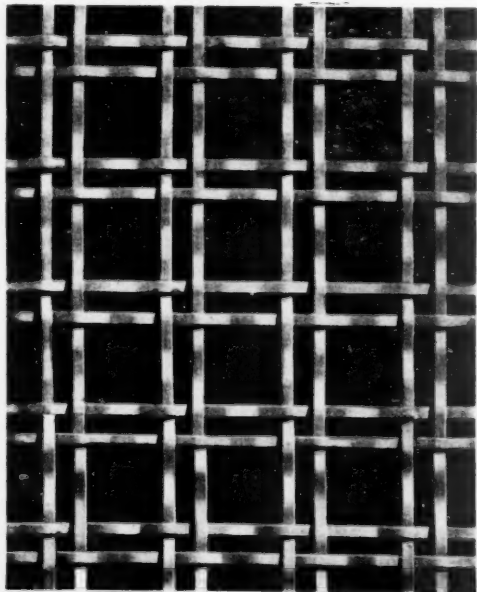
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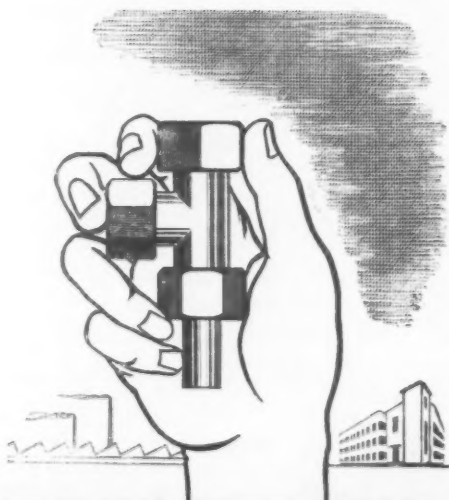
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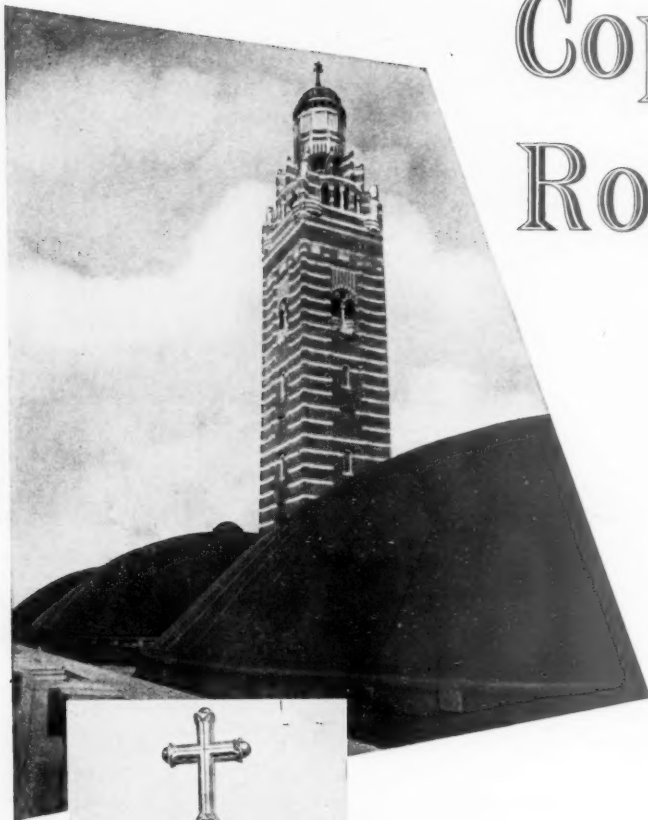
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THE
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February 9, 1951.

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HYGIENE AND FOOD

CERTAIN subjects seem to come to the forum and into public discussion in more or less regular cycles. Each time some progress, but not all that is discussed, is made and then the matter goes into a new hibernation period. This week it has been the subject of clean food; the Report of the Catering Trade Working Party has just been published; the House of Commons debated the issues on a motion by a doctor Member—a motion that was passed; there is a Packaging Exhibition in London. All this, of course, will result in something getting done—but will it?

Just how much disease is carried or spread by means of contaminated food or the insanitary conditions in which it is stored, handled, and sold, seems to be an unknown quantity, but common sense, based on even a rudimentary knowledge of bacteriology, suggests that the level of infection may be very high. There can be no doubt, also, that improvements in hygienic handling of food have occurred with increasing momentum from the days of the open medieval shop and stall, to the plate-glass enclosed, cellophane-wrapped, refrigerated conditions that are sometimes attained to-day.

There are three main phases or sides to this question; there is the protection of the food itself by wrapping, freezing, cooling or the like; there is the personal cleanliness of those who have to handle it and there is the design and cleanliness of the buildings, vehicles and containers in which it is handled. The Working Party's work seems a little curious in its scope and points of attack when the subject is looked at from such simple viewpoints.

The Working Party's Report has a great deal to say about keeping persons and things clean and an advisory committee which was set up by the Party's Chairman has much to add about detergents, soaps and machines for washing-up food utensils.

Now, it would seem that, while the ramifications of the subject may be almost infinite, there are certain basic factors for consideration. It is, for instance, very important that buildings in which food is handled, stored or eaten should be built for the purpose, specially detailed to avoid dirt-collection and constructed of materials requiring the minimum amount of the easiest type of cleaning. It is equally important that "food buildings" should be efficiently planned to avoid waste movements of either food-stuffs or people. Yet we find that there was no architect serving with the Working Party, nor apparently was any evidence called from either architects or builders relative to these basic considerations.

Another sort of fundamental consideration which seems to stand out very clearly is concerned with the amount of cooling, ventilation, heating, wrapping, sealing, freezing and gassing that should be insisted upon for food products. Many of these factors could be reduced to known desirable minima. Yet we find that there was no engineer on the Working Party, nor, apparently, was much evidence called from those who specialise in machinery for refrigeration, ventilation, heating, or the mechanics of wrapping, tinning or transport movements. If an architect was called in to design a high-grade "food building" he would want to consult such experts at a very early stage, but not so the Working Party. They do not, it seems,

want to *design* against dirt as it were from the source; they are more interested in getting rid of dirt which has accumulated owing to bad conditions and to devise codes and means for overcoming dirt caused by poor design or the use of out-of-date buildings. One or two examples will illustrate our point; the legal enforcement of "adequate lighting" in places where food is prepared is asked for—but what is adequate lighting? Engineers and architects might have been helpful. Again, "all catering establishments should be required to register with the appropriate local authority". Registration means inspection and supervision and, in the case of new buildings, standards of design and detail—here again architects and engineers might be able to help. Prevention is better and usually cheaper than cure.

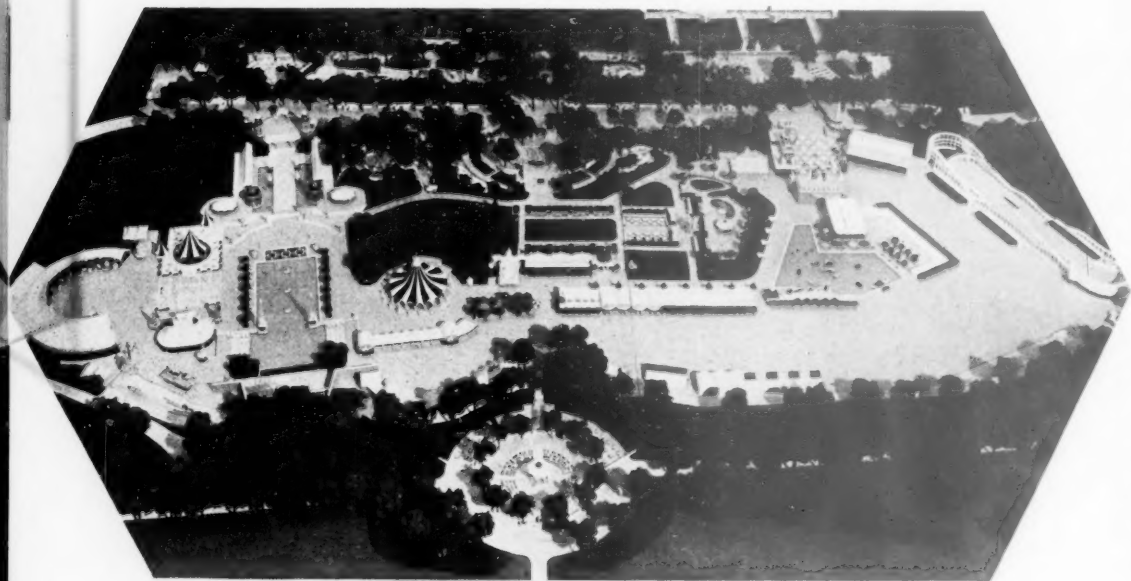
There is no doubt that this country lags behind most others in the quality and extent of its methods for the protection of retail foodstuffs. The wide application of wrapping and packaging in the United States and in some continental countries and the design of such specially erected buildings as the excellent "Konsum" (Co-operative) shops and stores in Sweden are worth study. Soviet Russia is making it fashionable—not to be outdone by the west—to insist

on new standards of shop design and to wrap everything or to keep food under glass in its retail shops. Yet we notice that there is practically nothing said by the Working Party about what is going on abroad.

We still allow fruit, meat and fish shops to remain open to the street, we still transport food in makeshift and unsuitable vehicles, we still design unsuitable buildings or allow old ones to be patched-up. We still allow buildings which are not easily cleaned, which are not vermin-proof and which, in their very texture and appearance, encourage neither staffs nor customers to respect the common-sense rules of elementary cleanliness.

This Working Party may have helped a little, parliamentary debates and public exhibitions may air the subject occasionally, but what is really needed is a much more drastic drive made with the co-operation of expert designers who can contribute knowledge and experience culled from both this country and abroad.

All types of buildings have to have some sort of provision for the handling and preparation of food—the subject is of the widest kind. May we suggest that this is a subject that should receive the attention of the Exhibitions Committee of the R.I.B.A.?



MODEL OF THE FESTIVAL PLEASURE GARDENS

A general view from the Park side of the Festival Pleasure Gardens, Battersea Park, looking towards the river. On the left the whole sweep of the Main Vista, designed by John Piper and Osbert Lancaster, can be clearly seen, with the Crescent Restaurant extreme left. The Band Stand is in the centre foreground, with—behind it—the Dance Pavilion and Amphitheatre. The 7-acre Fun Fair can be seen on the right of the picture, with (extreme top right) the Pleasure Garden's Pier.



The South African Tourist Association premises at 70 Piccadilly. See also pages 171—177.

EVENTS AND COMMENTS

ELECTRICAL FLOOR HEATING

TWO weeks ago I mentioned experiments being carried out on the heating of solid floors by electricity. My statement was factual and without comment but one reader almost accuses me of wasting the country's coal while another, from Dundee, tells me that not only is this idea a *fait accompli* but that Queen Anne is dead as well. These two gentlemen should meet. Mr. Donald V. H. Smith supplies a number of facts which I am not in a position to question and comes to the conclusion that electricity is a waste of coal. Mr. W. Sinclair Gauldie, on the other hand, points out that the solid floors of his house are heated by electricity and that his is not the only installation in "canny Dundee."

While I have, on more than one occasion, said that with the present limited generating power and a fuel shortage there should be some control on the sale of electrical appliances, I have never gone so far as to suggest that electrical heating was a bad thing in itself. It is expensive but it is also convenient, both in installation and use. If Mr. Smith's figures are correct I would suggest that the correct approach to the problem is to devise ways of making power stations more efficient and to continue to experiment with different types of electrical heating, and not to curse architects and town planners for taking advantage of one of the few blessings of our civilisation.

FOUR

POSTER EXHIBITION

THE L.C.C. is arranging an International Poster Exhibition to be held in the Victoria Embankment Gardens during the summer. The C.o.I.D. is collecting the posters and the L.C.C. is organising a competition for students in its art schools in connection with the exhibition. It is hoped that the exhibition will be open from June 30 for four weeks. I trust that this does not mean that the series of exhibitions of paintings, which has been so successful, is to be interrupted.

EXHIBITION OF EXHIBITIONS

THE principal contribution of the Royal Society of Arts to the Festival of Britain will be an Exhibition of Exhibitions to be opened at the Society's headquarters by H.R.H. Princess Elizabeth on May 1, the hundredth anniversary of the opening of the Great Exhibition.

It is perhaps not generally realised that the R.S.A. pioneered several types of modern exhibition. The Society held the first exhibition of British contemporary art in 1760 and the first Photographic Exhibition in 1852. These exhibitions led directly to the formation of the Royal Academy and the (Royal) Photographic Society. In 1845 the Society of Arts (the Royal came later) began work on a great national exhibition of industry. This was not a popular project and it was decided to work up to it with a series of small annual exhibitions culminating in 1851. Exhibits from some of these exhibitions will be shown together with exhibits from the Exhibition of British Art in Industry, 1935, Britain Can Make It, 1946, and Design at Work, 1948.

The first industrial exhibition ever to be held was organised by the Society in 1761 and a section of this year's exhibition will include reproductions of some of the agricultural and industrial machines shown then.

There will also be an exhibit illustrating the Royal Society of Arts' origination of the Great Exhibition of 1851. Visitors will see the minutes, corrected in Prince Albert's own hand, of the conference held at Buckingham Palace on June 30, 1849, at which the final plan for the exhibition was approved. The R.S.A. exhibition is being designed by Mr. Hulme Chadwick. As a precaution against sore feet and general exhaustion this summer, I have already gone into training.

VICTORIA STATION, BEFORE AND AFTER

BEFORE. On Monday I am invited to inspect the new booking office at Victoria. What shall I hope to see? First, good circulation. Second, a clean and cheerful atmosphere with somewhere to sit if I have to wait. Third, plenty of easily-understood information about which window sells which sort of tickets and which trains go from where. Fourth, something a little more friendly and civilised than a small hole in the wall at which to buy my ticket. In the general design I shall hope to find that the architects of British Railways (S.) have had a chance to see and adapt the best of the latest ideas in railway design which have appeared since the war on the Continent and elsewhere. The next paragraph will tell you whether or not I was disappointed.

After. There is certainly plenty of space to circulate, but whether the summer crowds will be able to sort themselves out remains to be seen. Perhaps some form of movable barrier will be used; otherwise the queues may become somewhat confused. The atmosphere is clean and cheerful and information about tickets is clearly displayed. Having bought your ticket it is still

necessary to walk a long way to the train indicator, which may tell you to walk all the way back again.

The ticket windows are a great improvement, but are spoiled by the patches of obscured glass. The detailing is solid and rather heavy, but the hall is easily the best that British Railways have so far produced.

THE NEW COLONIAL OFFICE

IN spite of the fact that what look like setting out lines have been pegged on the site of the Old Westminster Hospital, the battle does not yet seem to be quite lost. Lord Mottistone, who claims to be the only full-time practising architect peer, in a maiden speech in the House of Lords last week, appealed for reconsideration of the Colonial Office project. He was strongly supported by several noble Lords, including the Archbishop of York and Lord Samuel, Hon. FFR.I.B.A. With the exception of Lord Chorley and Lord Swinton, all the speakers were in favour of finding another site for the building. Lord Chorley thought that it would be a mistake to leave the site as an open space—he did not say why—and that a really fine building should be erected on it. He did not say whether he thought that the proposed design fitted the bill, except that he drew attention to the remarks of the Royal Fine Art Commission on its height and said that the building should be set further back. Lord Swinton thought that it would not be reasonable to leave the site as an open space and doubted whether the “beauty and aesthetic conception” of the area would be enhanced by doing so. He thought, however, that the proposed Colonial Office should be smaller. Lord Morrison, speaking for the Government, naturally pointed out that it was rather late in the day to change, and drew attention to the amount of work that had been done on the scheme. He admitted that other sites had been considered but said that none suitable had been found. He could not give any hope at all that the Government would look favourably on the idea of abandoning the site altogether. Height, frontage and accommodation were being considered and as soon as the Government had arrived at a decision a statement would be made.

Although the battle is not lost, it is clearly not yet won. Perhaps the rearmament programme may help by delaying the project.

CARLTON HOUSE TERRACE

MR. E. H. KEELING, M.P., who disparaged Hawksmoor's towers and the Central Hall, and cried “too late, too late,” about the Colonial Office, is making up for it over the threat to Carlton House Terrace. As a member of the Westminster City Council he has been largely responsible for making the Town Planning and Improvements Committee change its mind on recommending, in principle, acceptance of the scheme. The Government is to be asked to publish the observations of the Royal Fine Art Commission before any design is approved.

The Times in a recent leading article was extremely gloomy about both the Colonial Office and Carlton House Terrace, referring to them as lost battles. Public opposition is still powerful, but too often comes late in the day from lack of information and misleading statements by Government departments. The Royal Fine Art Commission could surely fill this gap by stopping bad schemes right at the beginning rather than contenting itself with polite observations on minor details when the major harm has been done. If, as I suspect, such action would come outside the Commission's terms of reference, then those terms should be revised.

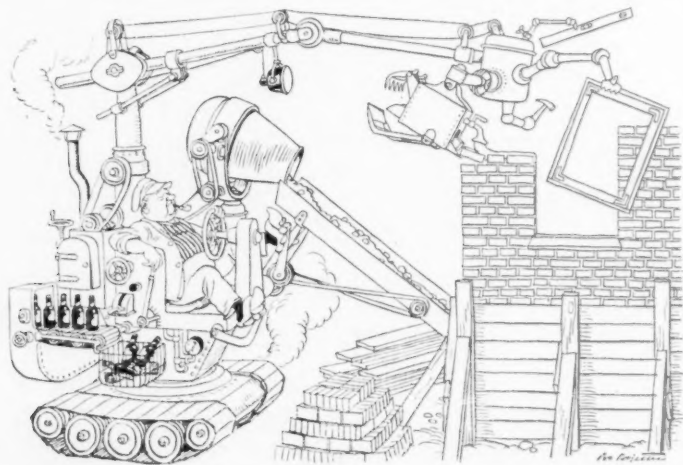
Let us fight on on both fronts. Write to your M.P. now!

MECHANISED BUILDING IN DENMARK

MY picture is taken from a Christmas card sent by a member of the Danish A.A. It illustrates the following extract from the report of the Danish Building Research Institute, 1949-50. “Mechanisation is also making its way into the building industry, albeit hesitatingly. One set of machines replaces human drudgery, another set manufactures building units with greater precision than hitherto and, in conjunction with a third set, the measuring instruments, pave the way for altogether new precision methods with the possibility of the simplification of erection of finished units.” (From the Annual Report of the Building Research Institute, 1949-1950).

Speaking as a layman, I should say that the machine illustrated was on the whole well designed, although I dare say that a visit to the Thatched Barn would tidy it up a bit. I would commend particularly the neatly designed welfare fitting near the operator's right hand.

ABNER



MECHANISED BUILDING IN DENMARK



Perspective of the winning design by W. N. W. Ramsay, A.R.I.B.A., A.R.I.A.S.

RESULT OF THE ARCHITECTURAL COMPETITION FOR THE EXTENSION IN GEORGE SQUARE OF EDINBURGH UNIVERSITY MEDICAL SCHOOL

THE REPORT OF THE ASSESSOR, MR. A. G. R. MACKENZIE, A.R.S.A., F.R.I.B.A.

THIRTY-NINE designs were submitted for this competition and after an exhaustive examination of all the drawings, the study of various reports and the checking of areas and costs, I have come to the conclusion that, while none of the designs present an entirely satisfactory solution, No. 6 will most nearly do so. I therefore award its author the 1st Premium. To the author of Design No. 26 I award the 2nd Premium, and to that of Design No. 9 the 3rd.

The Conditions admittedly presented a very difficult problem inasmuch as they envisaged the designing of a building to give the maximum accommodation on that part of the site already available, which at the same time would not be out of harmony in form, materials and scale with the remainder of George Square, whether that remainder was redesigned (as proposed by Dr. Holden) or not, and many otherwise well considered schemes have failed by neglecting to give due stress to one or other of these somewhat conflicting requirements.

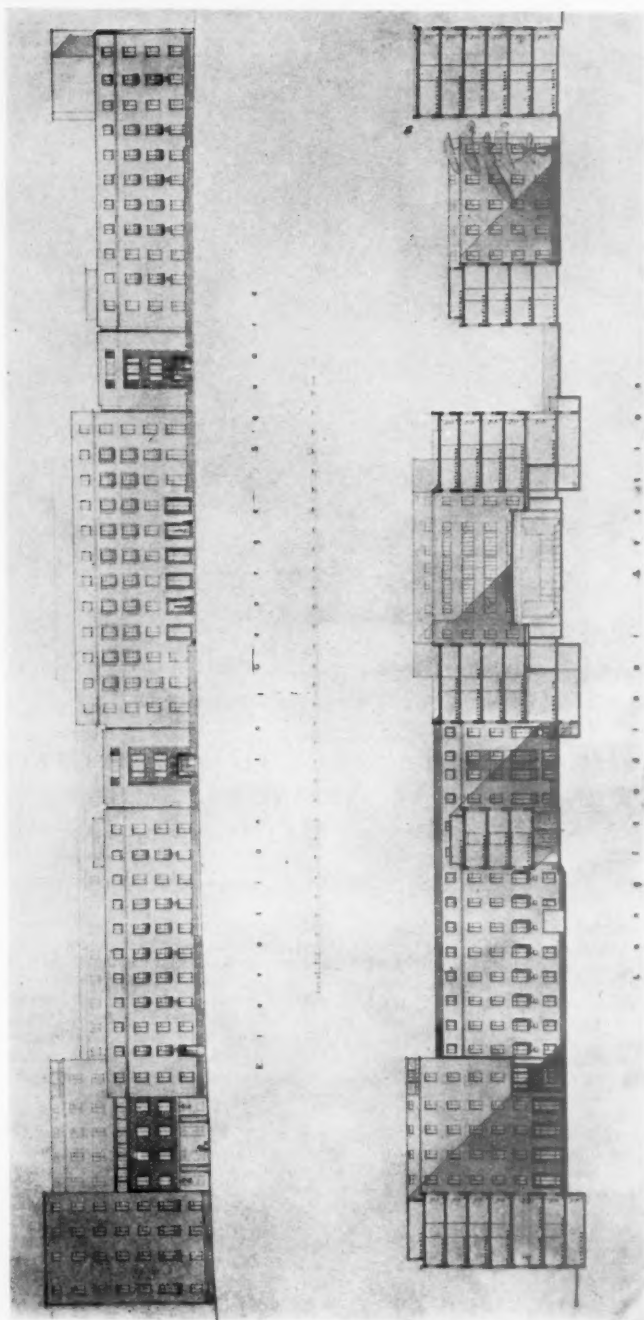
I find that alone among the competitors the author of No. 6, placed first, has designed a facade to George Square which, while not in any way reproducing the

existing 18th century domestic architecture, yet is entirely in harmony with it so that the general character of the Square may be maintained whether the remainder is redesigned or not, and I consider it fortunate that as a result of the Competition a design has been obtained which goes far to restore the architectural unity of the Square, referred to by Sir Patrick Abercrombie in his report on the City of Edinburgh as having been destroyed by the existing 19th century buildings on the site.

All the accommodation required on the areas set apart for Part I and Part II respectively has been provided, though this cannot be said to have been carried out in the most efficient manner. I refer particularly to the circulation, the adoption of a uniform width of 15 feet for classrooms, laboratories, etc., the planning of the Physiology Practical Classroom and the placing of Dissecting Room No. 2. Many of these faults appear to be due to lack of familiarity with the requirements of a medical school and they would no doubt be eliminated, after further consultation with the heads of Departments, when the modifications envisaged under Clause (6) are being prepared.

(Continued overleaf)

EXTENSION OF EDINBURGH UNIVERSITY MEDICAL SCHOOL



design awarded the 1st premium of 1,000 gns., by W. N. W. Ramsay, A.R.I.B.A., A.R.I.A.S.

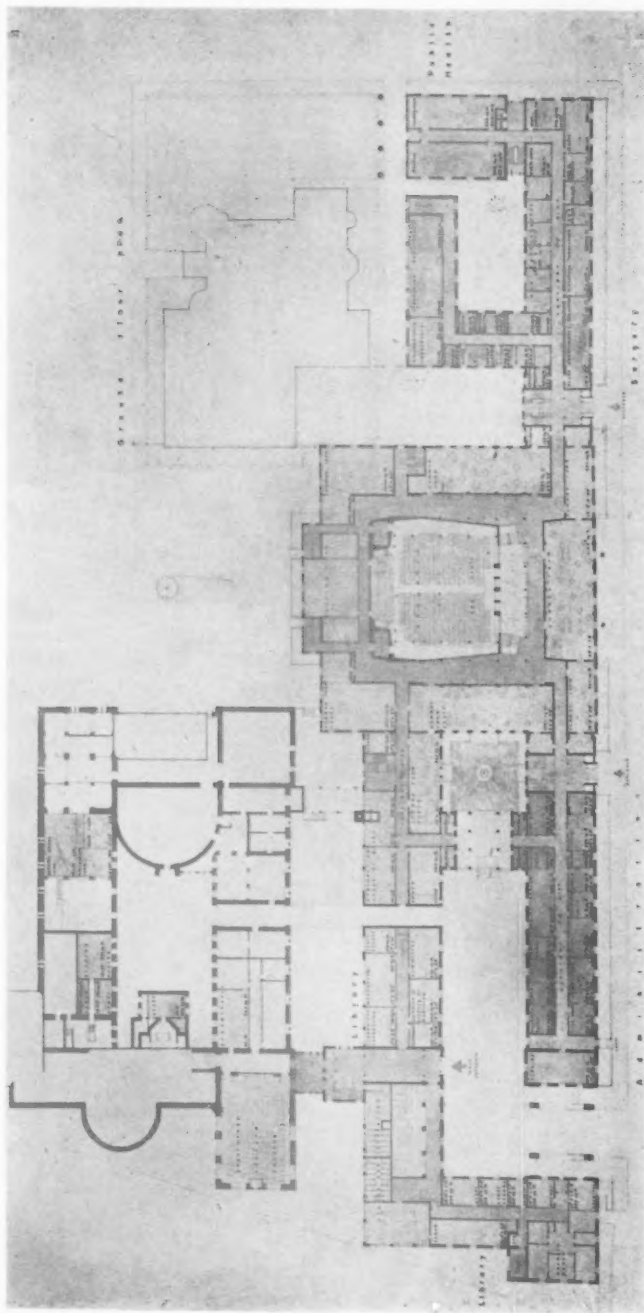
The plan, however, is of very flexible character, its well-lit blocks arranged round well-ventilated courtyards have certain advantages over the closed lightwells shown on many of the designs, and I consider that within the general framework, the planning could be amended to meet all the reasonable requirements of the University.

Upon checking the author's statement of cubic contents of the building, it was found that the estimated

cost should be £1,296,413. I consider the design could be carried out within 10 per cent. of this amount; plus any increase due to rise in cost of material and labour since December 1949 (the date the Conditions were issued).

Design No. 26 is placed second because of its excellent plan, which gives all the accommodation asked for in Parts I and II respectively arranged in a convenient and straightforward manner, with ample and

direct circulation for students and staff, and with all rooms amply lit and well-proportioned to their purpose. The design is presented by an excellent set of drawings, giving all the information required to show the competitor's proposals, making the scheme very easy to understand. The rather crude facade to George Square, however, with its recessed centre block would be quite out of harmony with the remainder of George Square, whether that remainder was redesigned or not.



design awarded the 1st premium of 1,000 gns., by W. N. W. Ramsay, A.R.I.B.A., A.R.I.A.S.

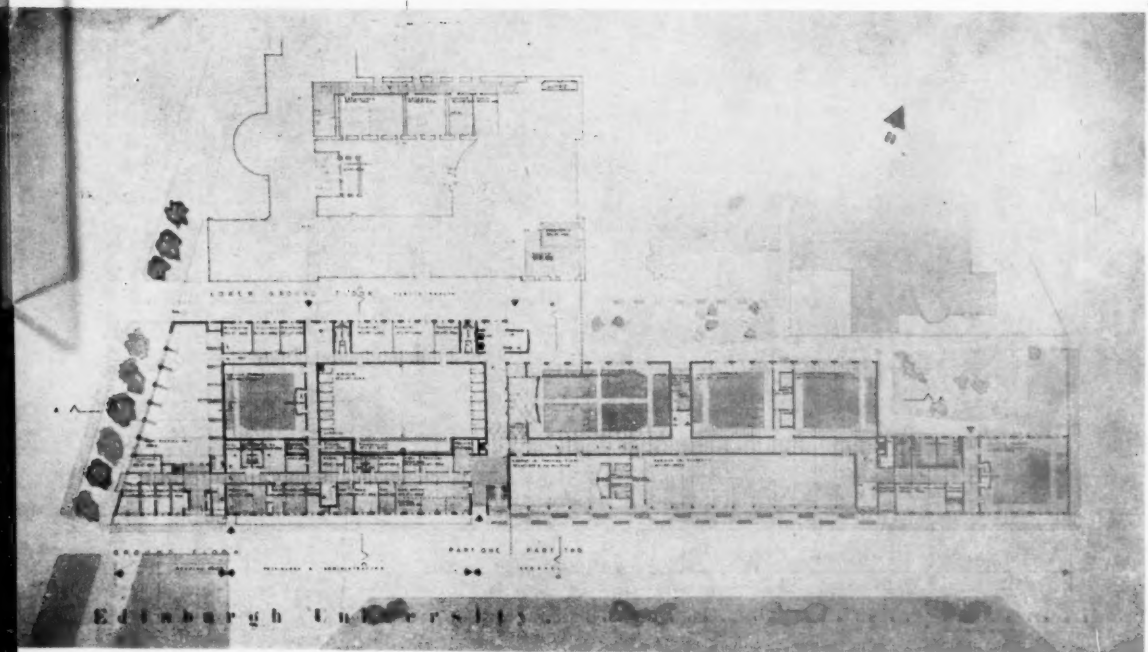
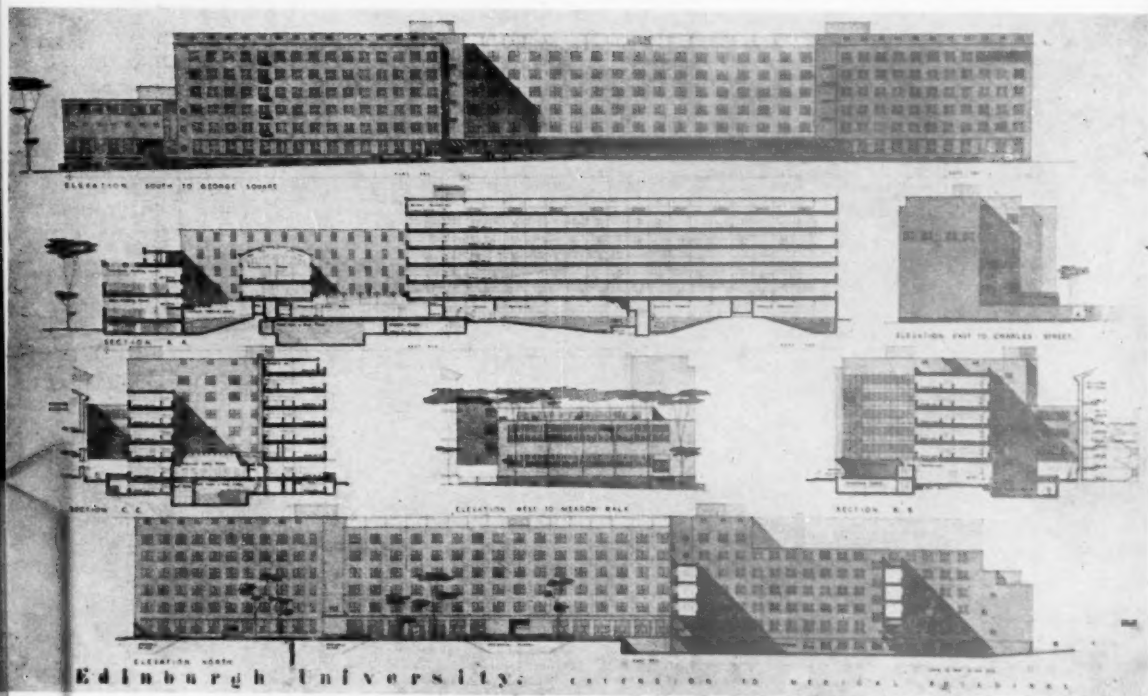
Upon checking the author's statement of cubic contents, it was found that the estimated cost would be £1,196,750. and I consider the design could be carried out within 10 per cent. of this amount; plus any increases due to rise in cost of material and labour since December 1949 (the date the Conditions were issued).

Design No. 9, placed third, again gives all the accommodation asked for and is a thoroughly practical and

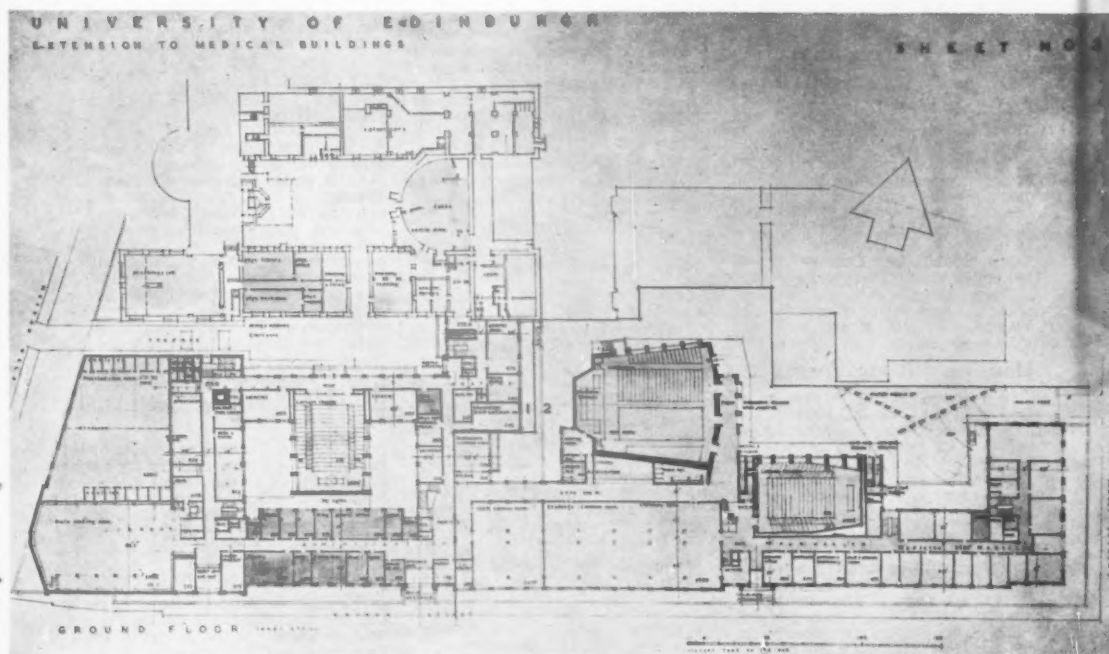
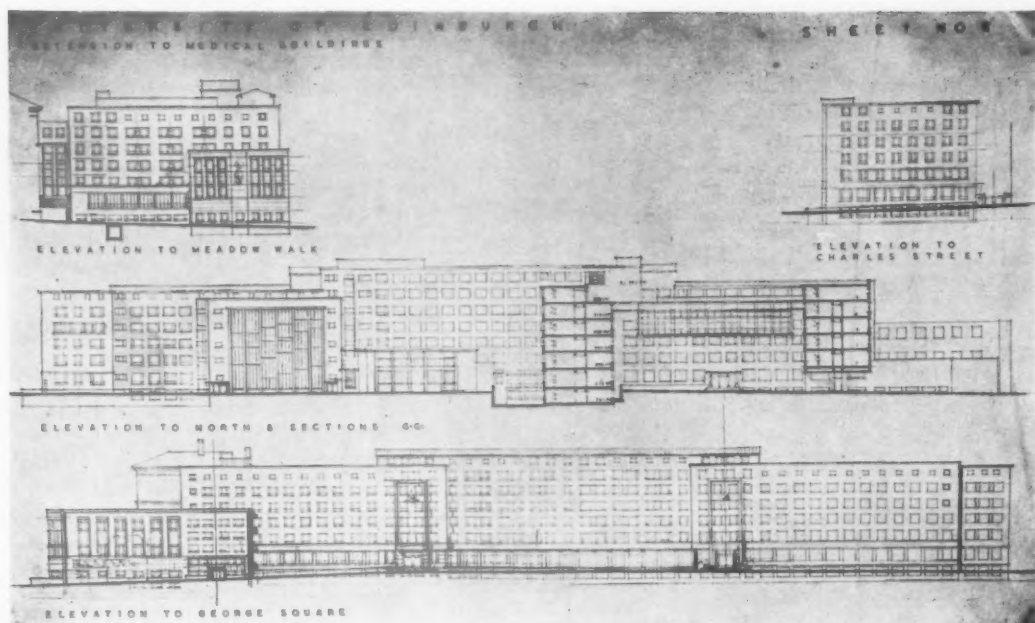
workable scheme. The competitor has provided ample circulation and has considered the light and proportions of the various rooms in relation to their purpose. The design, however, is lacking in amenity and the facade to George Square is unsuitable.

I consider this design could be carried out at a cost not exceeding 10 per cent. of the author's estimate of £1,162,750; plus any increase due to the rise in cost of materials and labour since December, 1949 (the date the Conditions were issued).

It is unfortunate that some of the other competitors whose designs would have been worthy of mention, have misread the Conditions and gone beyond the boundaries of the site available for Part I. The only purpose of mentioning the demolition of the Agriculture and Forestry building in the paragraph in the Conditions, on lighting, was that competitors should not be hampered by restrictions of light for the design of Part I.



design awarded the 2nd premium of 600 gns., by P. Neville Taylor, A.R.I.B.A., and J. Holt, F.R.I.B.A., A.M.T.P.I.



design awarded the 3rd premium of 300 gns., by A. J. M. Tolhurst, A.R.I.B.A. All the designs submitted in this competition will be shown at the R.I.B.A. from Feb. 13-19 inclusive

NEWS OF THE WEEK

Competition for Medical Buildings Extension, Edinburgh University

At the close of the public exhibition in Edinburgh of all the designs submitted in the above competition the three premiated designs will be sent to the R.I.B.A. and will be on exhibition at 66 Portland Place from Tuesday, February 13 to Monday, February 19 (both dates inclusive) between the hours of 10 a.m. and 7 p.m. (Saturday 5 p.m.).

A.A. Members' Photographs

The annual exhibition of photographs by members of the Architectural Association opened at the A.A. on January 31.

The high standard of technical skill noted in the works of past exhibitions has been maintained but it is a pity that details of exposure, film speed, etc., which used to form an interesting record beneath each picture, has been dropped.

On the whole the subjects chosen are rather disappointing. Highly photographic mountain scenery and scenes with boats, still seem to be popular.

Pictures by acknowledged experts, Messrs. Norman and Bryan Westwood and Colin Penn, are well represented. A boy's head by Mr. R. H. R. Spencer and some frosted leaves by Mr. A. Bevington, made interesting subjects.

The exhibition closes on February 23.

Housing Progress Report

The number of permanent houses completed in Great Britain during December was 15,950 compared with 17,543 in November and 17,603 in October.

This brings the number of permanent houses completed during the year to date to 198,171 made up as follows: January 14,356, February 14,069, March 19,385, April 14,862, May 17,030, June 18,107, July 17,013, August 14,945, September 17,398, October 17,603, November 17,453, December 15,950.

The total number of houses completed under the post-war programme is now 978,664 (821,518 permanent and 157,146 temporary).

Housing Labour Force

It is estimated that at the end of December there were 223,100 men employed on the construction of permanent houses and preparation of housing sites in Great Britain. This figure does not include the number of men directly employed by local authorities.

Westminster Hall was reopened to the public on February 1. It has been closed since it was damaged by enemy action in 1941. When Parliament is in session, visitors will be admitted on Mondays to Thursdays from 10 a.m. until one hour before the House meets, and on Saturdays from 10 a.m. to 4 p.m. When Parliament is not in session, admission hours will be 10 a.m. to 4 p.m. on weekdays, except Good Friday and Christmas Day.



CONGRATULATIONS

Mr. W. N. W. Ramsay of Messrs. C. J. M'Nair, Elder and Ramsay, of Glasgow, winner of the competition for the Extension in George Square, Edinburgh, of the University Medical School.

The 1951-52 school building programme of the L.C.C. for which the Minister of Education is prepared to allocate £4,500,000, comprises the erection of ten county primary and four voluntary primary schools, three comprehensive high schools for 2,000 children each, five county additions to existing secondary schools, two voluntary secondary schools and war damage repair and miscellaneous work to cost £354,000.

COMING EVENTS

L.M.B.A.

- February 13, at Horse Shoe Hotel, Tottenham Court Road, W.C.1. Area General Meeting, Central Area No. 3.

The Housing Centre

- February 13, at 1.15 p.m. "Five Years' Housing in a Country District." Speaker: Mrs. Spurgin, J.P., North Cotswold R.D.C.

Incorporated Institute of British Decorators

- February 13, at 6.30 p.m. At the Royal Society of Arts. "Decorative Veneers." Speaker: L. C. W. Jenkins.

The Institution of Structural Engineers

- February 14, at 5.30 p.m. Joint meeting with the Reinforced Concrete Association. "The Ultimate Strength of Prestressed Concrete." Speaker: Professor A. L. L. Baker.

University of London

- February 15, at 5.30 p.m. "Thoughts on Architecture To-day." Speaker: Michael Waterhouse.

Architectural Competition

The Executive of the World Zionist Organisation, in conjunction with the Board of Trustees for Herzl's Tomb, invite Jewish Architects, Sculptors and Planners throughout the world to submit designs in competition for the proposed Memorial to Herzl's Tomb, the park and the traffic lay-out of the immediate vicinity. The design should be an expression of the feelings of reverence and admiration of the Jewish people for Theodor Herzl, who founded the World Zionist Organisation.

Assessors: B. Locker—Chairman, Jewish Agency, Jerusalem. A. Berachyahu, Engineer—Jewish National Fund, Jerusalem. Dr. L. Lauterbach—Secretary of the Zionist Executive, Jerusalem. J. Metrikin, Architect—Jewish Agency, Jerusalem. J. Pinkerfeld, Architect—Tel-Aviv. Professor Y. Ratner, Architect—Haifa. H. Rau, Architect—Jerusalem. J. Weitz—Jerusalem. N. J. Aslan, A.R.I.B.A., A.M.T.P.I.—London.

There are 11 premiums offered totalling £5,000.

The last day for submitting designs, June 21, 1951.

The Schedule of conditions and particulars including photographs of the site, may be obtained on application to the Secretary, the London Committee, Herzl Memorial, 77 Great Russell Street, London, W.C.1, enclosing a deposit of £2 2s.

In view of the religious character of the project this competition has been restricted to members of the Jewish faith.

Industrial Design Competition

The eighth industrial design competition organised by the journal *Art and Industry* was sponsored by the Plastics Division of I.C.I. Architectural and industrial design students were invited to submit plans for a hotel reception office, making use of plastics—in particular "Perspex" acrylic materials.

The winner of the first prize (£50) was Mr. Henryk Blachnicki, a student of the Polish School of Architecture, Mr. Andrew Jackson, of Edinburgh, was placed second, and another student of the Polish School of Architecture, Mr. Andrzej Chwalibogowski, received third prize.

Mr. F. R. S. Yorke, F.R.I.B.A., is now in Finland on a visit arranged by the British Council at the request of Professor Alvar Aalto. He will go on to Denmark on February 11 until 16, and will give lectures to the Architects' Associations of both countries.

ADDENDUM

The Bath & Portland Stone Firms Ltd. are supplying and fixing the Portland stonework for the facings of the East, South and West elevations of the New Printing Works at Nottingham for Messrs. Boots Pure Drug Co. Ltd., which was illustrated in last week's issue.



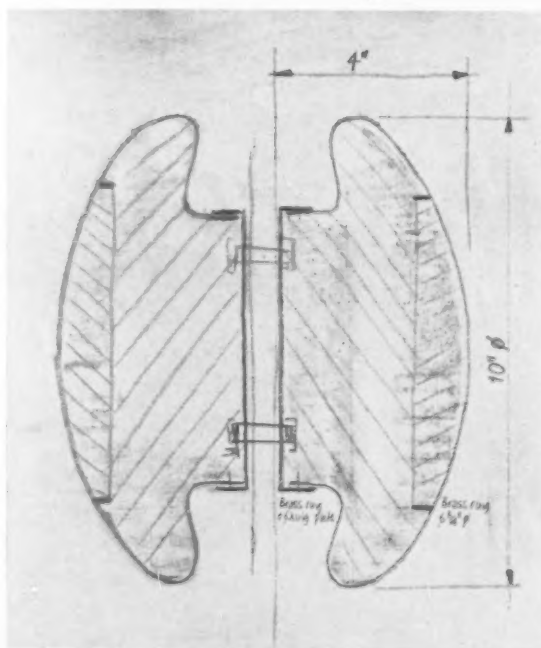
70 PICCADILLY

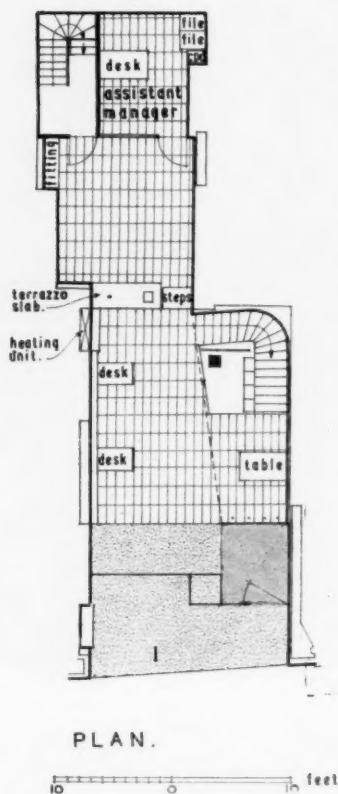
for the
South African
Tourist
Association

architects:
JAMES CUBITT & PARTNERS
in association with
SERGEI KADLEIGH, A.R.I.B.A.
consulting architect to Cockade Ltd.

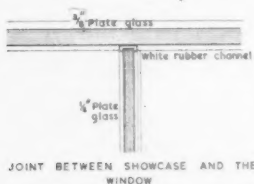


Key Elevation 1/4" scale.

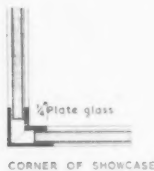




PLAN.



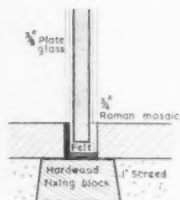
JOINT BETWEEN SHOWCASE AND THE WINDOW



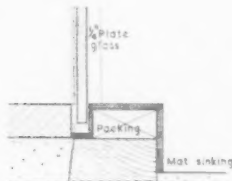
CORNER OF SHOWCASE



DOOR TO SHOWCASE



SECTION THROUGH WINDOW AT FLOOR LEVEL



SECTION BESIDE DOOR

Ground floor plan, showcase and window details.

THE original premises consisted of a dilapidated ground floor shop, an uninhabitable basement and, at the back, five floors of one room each connected by a rotting staircase. The clients required that the utmost use should be made of the ground floor. As existing, the ground floor level was up two steps from the pavement. This timber floor was replaced by a concrete floor at pavement level and the basement was lowered to make a habitable auditorium.

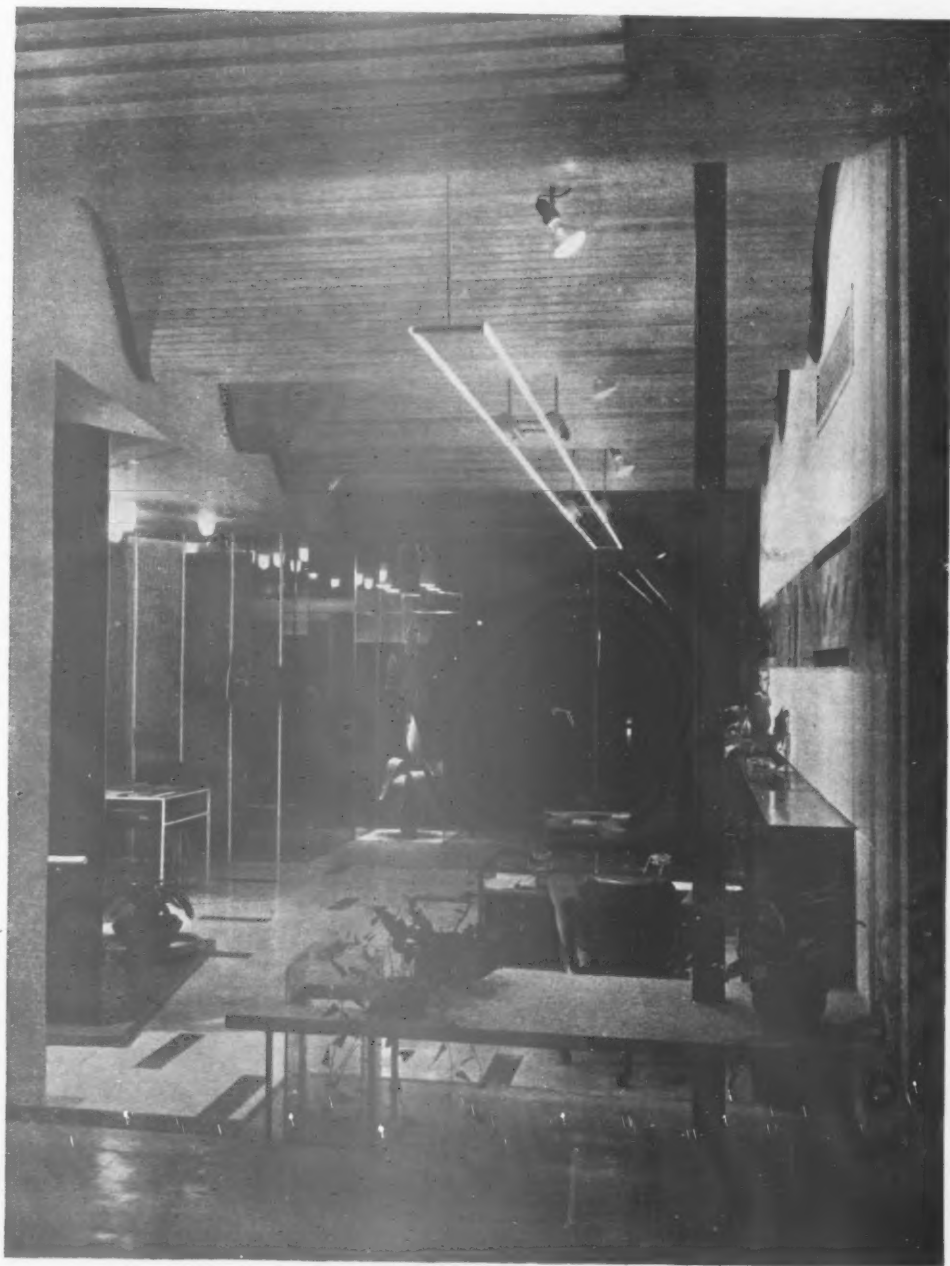
The new shop window is an apparently frameless glass wall from floor to ceiling, giving striking emphasis to the interior. The window is set back to form a small recess from the pavement so that the two flank walls are partially external and partially internal. One of these walls is covered in thin Tino marble slabs, the other by an enlarged map of South Africa, impregnated in plastic sheets.

The glazed vertical showcase left of the entrance door

which contains an Aloe feature, is powerfully lit and is intended to give an exotic touch in keeping with South African attractions.

The main feature of the ground floor interior is the curved wooden ceiling of Sycamore slats on a suspended wooden frame, the curves being originally set out free-hand. It was necessary to conceal the existing plaster ceiling which was at various levels and, in this small interior, to create the greatest feeling of spaciousness possible. It was also necessary to hold together the rather straggling areas available. Although the choice of this ceiling may appear arbitrary, it has achieved what the architects required.

For the rest, the architects selected all the furniture and arranged for it to be specially covered. No suitable desk could be found for the Manager, and this was therefore specially designed. Light fittings are geern-



ally from stock, but have been modified in various minor ways. For instance, the "Bullseye" lights to the staircase have been provided with metal discs to overcome the usual disadvantages that these lights show up any unevenness in the surrounding surfaces; another well-known light fitting was modified by being partly recessed into a false ceiling.

2" x 1/8" x 7 1/2" x 1" Shelf

2" x 2" Angle

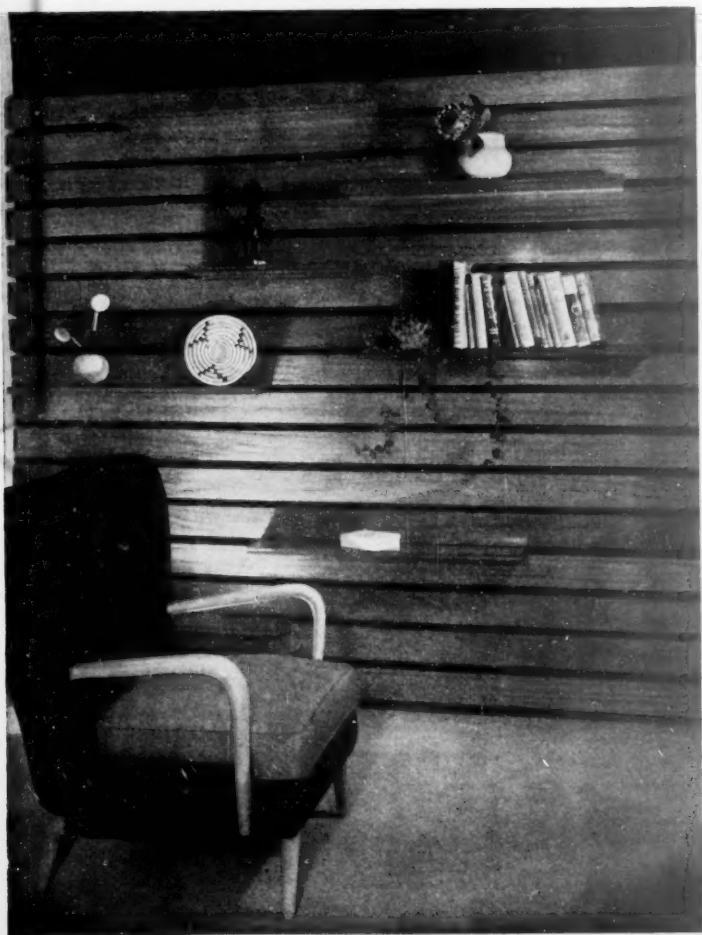
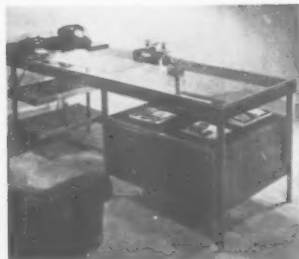
3/8" dia Sleeve

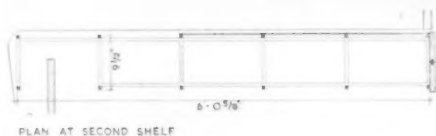
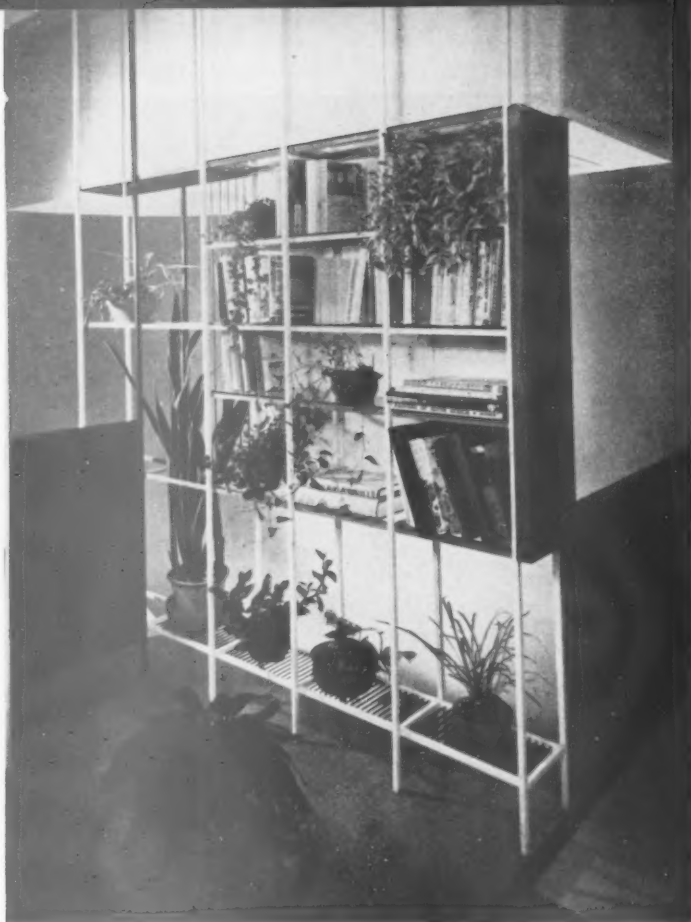
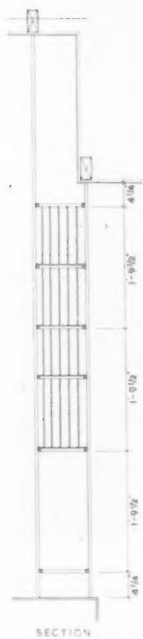
3/8" Plywood

70 PICCADILLY, W.1

ADJUSTABLE SHELVING

The shelving in the picture is fitted along one wall in the manager's office on the first floor. On the ground floor is a similar fitting, the slats are mahogany in its natural finish, polished. The shelving is cellulosed. Below, is the desk in the manager's office. The telephone slab is marble; the filing drawer is a standard steel unit. Woodwork is solid mahogany or mahogany veneer in its natural finish, either polished or cellulosed.

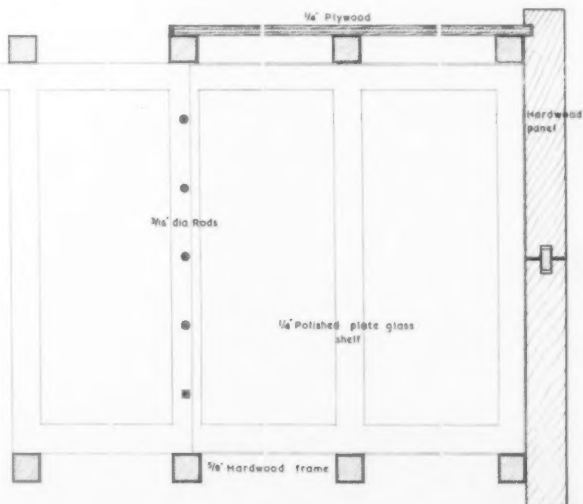




architects:
JAMES CUBITT & PARTNERS
in association with SERGEI KADLEIGH

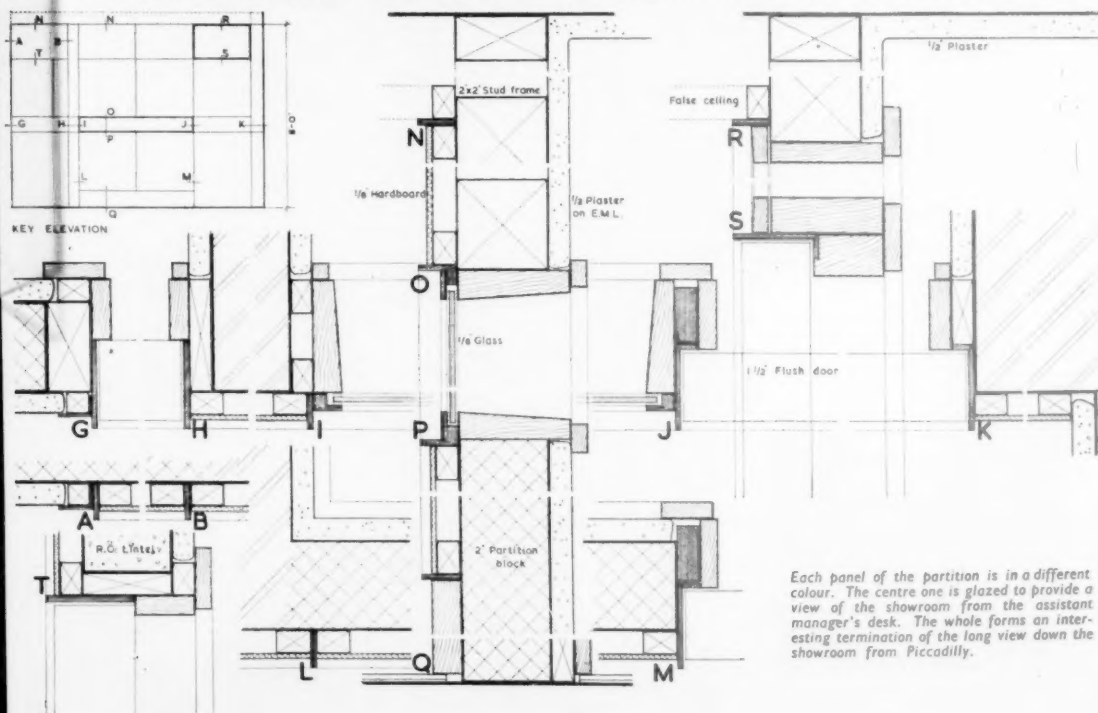
BOOKCASE FITTING GROUND FLOOR

Colours used are white, black, blue and yellow, with the steel bars on the bottom shelf in a natural finish. The hardwood panel is mahogany in its natural finish, polished. The black marble slabs at each end of the fitting form bulkheads to the staircase.





PARTITION BETWEEN SHOWROOM AND ASSISTANT MANAGER'S OFFICE



Each panel of the partition is in a different colour. The centre one is glazed to provide a view of the showroom from the assistant manager's desk. The whole forms an interesting termination of the long view down the showroom from Piccadilly.

The top picture shows a casual table behind the entrance to the showroom. Below is one of the Information Officer's desks which is incorporated with the showcases in the west wall. The framework for both desks is in hollow square metal sections and metal angles.

GENERAL CONTRACTORS: HOLLAND & HANNEN and CUBITT LTD. Also responsible for Glazed Shop Front, External Showcase.

Duct and Fans: Vent-Axia Ltd.

Electrical Installation and External Telephones: E.M.I. Sales & Services Ltd.

Handrailing and Ironmongery: Knight & Co.

Heating: Weatherfoil Co.

Lettering on Glass and Satour Sign: Pugh Brothers Ltd.

Lettering and Signwriting: The Lettering Centre.

Light Fittings: Merchant Adventurers of London Ltd.; J. W. Harker Ltd.; Troughton & Young Ltd.; Electrolumination Ltd. (Cold Cathode-strip Lighting).

Paving, Marblework and Terrazzo: Jaconello Ltd.

Paxtiles: Newalls Insulation Co. Ltd.

Rails and Ladders: Porter Products Ltd.

Rubber Flooring and Linoleum: Cellulin Flooring Co. Ltd.

Sanitary Fittings and Mirrors: John Bolding & Sons Ltd.

Wall Panel, Map and Letterbox: Warerite Ltd.

Water Heater: General Electric Co. Ltd.

Window in Manager's Office: W. James & Co. Ltd.

DISPLAYS AND FURNITURE

Carpet: Alfa.

Desk in Manager's Office: Mayfair Displays Ltd.

Desk Maps: Georama Ltd.

Film Projector: Morris & Maguire.

Furniture: Story, Dunns, Tansad, Pel.

Satour Sign Design: H. A. Lunn.

Showcase and Entrance Screen Panel: Cockade Ltd.

70 PICCADILLY, W.1

for the
SOUTH AFRICAN
TOURIST
ASSOCIATION

architects:
JAMES CUBITT
& PARTNERS
in association with
SERGEI KADLEIGH, A.R.I.B.A.
consulting architect to Cockade Ltd.



IN PARLIAMENT

Building in Westminster

SOME modification of the plans for the new Colonial Office to be built on the site of the old Westminster Hospital may be looked for as a result of a debate in the House of Lords on January 31. While there were differing opinions on the suggestion that the site should remain an open space—an idea which the Government spokesman rejected—there was general agreement that second thoughts on the design and use of the proposed new building might prove best.

Lord Mottistone chose the recent expressions of public opinion in favour of some revision of the project as the subject of his maiden speech, and himself advocated the erection of a new Colonial Office elsewhere unless the frontage could be set back to accord with the strong representations of the Royal Fine Art Commission. The clearing of the site, and the production of a model of the proposed building, had caused many people to think again about the best use for a site in so historic an area. The model showed that the building would bulk forward and ruin what could be a seemly layout; part of the Central Hall would be obscured, and the dignity of the approaches to the Abbey destroyed. There was apparently to be only a small setting back of the all-important south front of the new building. If the accommodation needed for the Colonial Office could not be found by replanning which would give a dignified square, then a smaller department should be housed in the building on this site and another place found for the Colonial Office.

Lord Bادهley added the suggestion that this other site might well be on the south side of the river, where there was the huge ruin of Doulton's porcelain works.

The Archbishop of York summed up most of the objections to the present proposal in three questions—was it necessary to have a Colonial Office extension anywhere; was it necessary to have it in that place—where it would obscure remarkable views of the Abbey and the Central Hall, and occupy a site which as an open space would constitute a fine memorial for the last war; and was it necessary to have a building which, by its height, would dominate the surrounding buildings.

Lord Mancroft said they should frankly admit that in its previous decision Parliament had made a mistake. The model plan showed clearly what an incongruous jumble the heart of the Empire would become with a building of such proportions thrust into it.

The Earl of Halifax added some general arguments on the need for space to display properly London's treasures of beauty and distinction.

These and other appeals for revision and reconsideration received support from **Lord Silkin**, a former Minister, who acknowledged his share of responsibility for the acquisition of the site, but claimed that it was no discredit to anyone to say that their aesthetic sense had improved since 1947.

Viscount Samuel suggested that the right solution would probably be to set back the frontage of the new

building and let the Colonial Office be satisfied with less commodious premises. Neither **Lord Chorley** nor **Viscount Swinton** thought it would be reasonable to leave the site as an open space.

Lord Morrison, Parliamentary Secretary to the Ministry of Works, disclosed that when the public discussion on this subject arose a few weeks ago the Minister was on the point of calling for tenders for the excavations. He dwelt on the fact that there was no opposition to the proposal in either House when the Bill was being passed, and spoke of the waste of money as well as the delay which any substantial change now would involve. The Government had no suitable alternative site in view for the Colonial Office, and to change the site now would mean complete replanning of the project and involve years of delay. In view of the wide public concern, however, the Government were giving the matter close consideration. They would not favour abandoning the site altogether. Questions of height, frontage and accommodation were under active consideration, and as soon as the Government reached a decision it would be announced.

Softwood Imports

Mr. Thomas Reid asked the President of the Board of Trade what quantity of softwood was imported from the United States in 1950, and what quantity was expected in 1951; and what quantity was imported from all sources in 1950, and what quantity was expected in 1951.

Mr. Harold Wilson informed him that the total imports of 902,000 standards of softwood during 1950, 19,000 standards were imported from the United States. He could not give an exact forecast of imports in 1951, but considerably more softwood was expected from the United States this year; total imports were also expected to be larger. (February 1).

R.I.C.S. Views on Planning

The Minister of Town and Country Planning was asked by **Mr. Black** on January 30 whether he had considered the memorandum issued by the Royal Institution of Chartered Surveyors entitled "Defects of the Town and Country Planning Act and the Remedies," and what action he proposed to take. **Mr. Dalton** stated that he had already adopted some of the suggestions in this memorandum, and was considering the others. **Mr. Braine** added the comment that the reports of new town development Corporations bore out the memorandum to the extent that they showed that the compensation provisions of the Act were likely to cause serious hardship.

Building Apprentice Schemes

The Minister of Works was asked (January 30) if, to avoid confusion and delay, he would simplify the procedure for obtaining approval for the building apprentice master schemes by reducing the number of departments and interests which had to be consulted. **Mr. Stokes** said that he was not aware of any confusion or delay, but undertook to look into any particular case. **Mr. Russell** then said that three Government Depart-

ments, two organisations, connected with the building industry, and at least three departments of the local authority had to be consulted, and that in Wembley the time taken to launch a scheme involved just under six months of vigorous correspondence. **Mr. Stokes** answered that there were already schemes in operation there; a considerable amount of taxpayers' money was involved, and they did not think another was justified.

Copper Roofs

Mr. Stokes informed **Mr. Turton** that at Hawkhill, near Easingwold (Yorks) six houses had been built with sheet copper roofs, and four similar houses were in course of erection. The average total cost per house was £1,645. The cost of sheet copper roofing was estimated at £52 a house. **Mr. Turton** characterised this as a scandalous waste of a very scarce metal. **Mr. Stokes** said that he had already looked into the matter. There were just four houses more on this estate, and he had been in touch with the Minister of Supply who agreed that these should be completed. Probably no more such houses would be built. (January 30.)

Incentives and Materials

The Minister of Works was asked by **Mr. Murray** what estimates he had made of the increased requirements of the building industry for materials on the introduction of incentive payments under the national bonus scheme, and how far the materials would be available. **Mr. Stokes** replied that it was impossible to forecast precisely the effect of the new incentive payments scheme, but he had called for a production from the principal building materials industries for which he was responsible that would provide for a substantial increase in requirements. (January 30.)

(From Our Parliamentary Correspondent).

Internal Coverings and Rigid Infillings

The Council for Codes of Practice for Buildings has now issued for comment Sub-codes 124.301, 124.309 and 124.401, "Timber Coverings (internal), Cork Slab Coverings (internal) and Rigid Infillings for Framed Partitions," prepared for the Council by a Committee convened by the Incorporated Association of Architects and Surveyors.

This document consists of the three sub-codes named above, each of which should be read in conjunction with Code 124, "Walls and Partitions of Framed Construction (external and internal)."

The Code is in draft form and is subject to amendment in the light of comments which should be submitted by February 24, 1951.

Copies of the Code may be obtained from the British Standards Institution, 24 28 Victoria Street, London, S.W.1, price 5s., post free, reference CP (B) 986.

LIBRARY NOTES

The Life of Sir Edwin Lutyens

By Christopher Hussey.

The Architecture of Sir Edwin Lutyens

Three Volumes. By A. S. G. Butler with the collaboration of George Stewart and Christopher Hussey. Country Life Limited. Price 25 guineas.

INEVITABLY the reputation of Sir Edwin Lutyens is at a low ebb. To many under the age of 40 he probably seems a skilful old reactionary, who at the most was the best of a contemporary bad bunch. To those who have reached middle age Lutyens still stands as a landmark which these volumes will undoubtedly make even more impressive, and they should bring some understanding of his genius to a generation who have so far ignored the great humanist.

The first impression is one of nostalgia: here are all the old friends, well known in the flesh and made familiar by the pages of Weaver's book—Grey Walls, Nashdom, Middlefield, Little Thakeham and, of course, Heathcote. They hold their own and still charm, and the charm is not one of period. Such early works are a small part of the great opus, culminating in Delhi and the Liverpool Catholic Cathedral. The country houses, becoming more classical, reach their peak with Ednaston (1913) and the extraordinary romantic throwback, Castle Drogo (1910-30). After 1914 the country houses are no longer typical of the age: it is Delhi, the larger works and memorials, that show the complete realisation of the artist's personality.

Sir Edwin was born in 1869, one of 14 children. A delicate childhood saved him from any organised education: instead he roamed the Surrey countryside. He went at 16 to the Royal College of Art but within two years was a pupil of Ernest George in whose office at this time were Guy Dawber and Herbert Baker. The latter became an intimate friend until differences at Delhi divided them.

At the age of 20 he was commissioned to build a small country house at Crooksbury, near Farnham. Leaving Ernest George he started the practice which was to be the most important, not only of his generation, but of any English architect. The early start was due to friendship with Miss Gertrude Jekyll, a pioneer of modern gardening. She employed the young architect and recommended him to friends. Together they carried out many of the gardens which by their formalism and architecture broke the romantic tradition of the past century. Miss Jekyll's planting softened and unified the architect's paving, steps, walls and pergolas, which were often fussy and overdone.

Another patron was Hudson, the founder of *Country Life*. He commissioned Deanery Garden (1899), the restoration of Lindsafarne Castle (1903) and the *Country Life* Offices (1904) and, by the publicity in his magazine, was

largely instrumental in bringing Lutyens to the fore.

The early influences were Philip Webb, Morris and Norman Shaw, and the Surrey vernacular building which from boyhood he observed so thoroughly. The use of sound honest craftsmanship and local materials was a fundamental of the early buildings and always important. The romantic feeling of the period was the obvious starting point but, as with Norman Shaw, this gave place to the symmetry of a "Wrenaissance" (Lutyens' joke); and this in turn to the mature geometric classicism of the Cathedral.

One can agree with Mr. Hussey's interesting speculation: "In this sense, Lutyens' abandonment of picturesque composition for the classical and symmetrical was not entirely compensated by the height and perfection to which he carried the renaissance ideal. One is tempted to speculate how he would have developed had he not accepted the classical regimen but had followed up the free empiricism—seen for instance in part of the 1898 addition to Crooksbury—to its fuller implications. At Deanery Gardens he achieved well nigh perfectly that which some Continental architects arrived at fumblingly a decade or so later on the strength of which they are hailed as fathers of modern architecture. Had he not rejected quite so decidedly the experiments of the Glasgow School, but explored with his endless inventiveness the further possibilities of his early jugglings with form-patterns at Crooksbury, would he not inevitably have been led to study the newer methods of construction and of using new materials? Had he done so there would not be that sense of finality, of his being *ultimus Romanorum*, the last consummate exponent of an ageless but, for the time being, obsolescent form of art, which accompanies one's admiration for the accomplished virtuosity of his later masterpieces. Instead, might we not have been able to say more often than conscientiously we can, 'herein and herein are exemplars for the architecture of the future, not full evolved perhaps yet handling its materials, concrete, steel and glass, with inventive genius and the sensitiveness and artistry only attainable through mastery of classic logic?'"

The 1912 addition of Folly Farm, a picturesque interlude, shows the latent possibilities which were to be developed in Holland in the 20's. In spite of regrets for what might have occurred we must feel that Lutyens did completely realise his talents: his intensely individual architecture, if sterile in that it can lead only to imitators, is a complete reflection of his age and the final flower of the tradition of Jones, Wren, Kent and Soane. If we have lost a great pioneer and leader we have learnt and still can learn much from Edwin Lutyens.

One lesson is the importance of texture. Texture can enhance a good building and may improve a bad. Think of the Victorian buildings which with better texture would please others than



Folly Farm; The Tank [Vol. I]



Viceroy's House, New Delhi; The Portico [Vol. II]

Midland Bank, Poultry [Vol. III]
From "The Architecture of Sir Edwin Lutyens."

Country Life Photos.

Mr. Betjeman and of the functional box which instead of growing shabby would weather gracefully. One can say honestly that every building by Lutyens has improved with age; can the same be said of the works of Corbusier? Britannic House, however unsuitable as an office building, is an object lesson in the fine weathering of its Portland stone. This is doubtless due to the battering and vertical recessions which allow rain to play over so much of the building's surface. Bricks of good colour and texture which we now take for granted had in the 90's to be imported from Holland and it is largely due to Lutyens that such a variety of pleasing bricks are now made in England, though alas they still do not compare with those of the Dutch and never will until quality is again as important as quantity.

One has been brought up to believe that Lutyens was a poor planner and the inconvenience of his country houses is quoted. The majority of these houses were built before 1914 and for rich people, who, as a matter of course, required the Servants' Halls, Still Rooms, Brushing Rooms and Men's Rooms which expanded the service wings and divorced the Dining Room from the Kitchen. Judged by present day standards these houses are madly inconvenient, but, as Mr. Butler points out, in that age of plenty, lubricated by an abundance of good servants, they were all that was required. Housekeepers, butlers and cooks had been interviewed to find out the requirements of their respective departments. It can, however, be said that the space and importance given to Halls, Staircases and Passages is disproportionate and that in many houses, however large, there is a scarcity of really comfortable Sitting Rooms. Though sacrifices were made for effect both inside and out, all Lutyens' buildings display a mastery of three dimensional planning. Nowhere is this better expressed than in the Viceroy's House at Delhi, where the complicated requirements of an elaborate Court are welded into a monumental mass, made up of a variety of fascinating and beautiful shapes, set amidst amazing gardens; and the whole presided over by the glorious dome. Here is a palace unrivalled in the past and unlikely to be excelled.

What is eminently right for a Viceroy's Palace, a cathedral or a monument, built of solid masonry to endure for centuries and expressing the continuity of an empire or a religion is not entirely appropriate to offices in the City of London, even if they be the palace of a great bank or corporation. Lutyens' buildings in the City show his virtuosity and assimilation of classic forms; they have grandeur and beauty of proportion and detail, but the immense solidity and elaborate modelling in depth, however masterly, are not compatible with steel frames and city streets. These buildings, though immeasurably superior to the majority of their fellows, for example the inept vulgarity of Baker's Bank of England, do not warrant all the praise bestowed by Mr. Butler, who waxes particularly lyrical over the elaborate concoction for Reuters in Fleet Street. This is the last (1935) of the city series and with large windows and plain wall

surfaces makes some concession to modern requirements and feeling. In the earlier buildings it is as if the banker had been squeezed into the exquisite embroidered coat of a forbear; and, however tight and uncomfortable, the tailor has made an excellent fit. For Reuters some modernisation and letting out was attempted and the result is a compromise; also an excellent example of the futility, now generally recognised, of adapting past styles, however lovely, to unsuitable modern conditions.

When we consider the designs for the Liverpool Catholic Cathedral, we find an analogy not with a coat but a cope. A cope is more voluminous than a coat and it should fit as well in 1950 as in 1550, its function having altered little. The design of a cathedral cannot therefore be judged in the same way as one for an office building or a factory; it must express the continuity of the Christian religion. Lutyens has done this and created a building of the size of St. Peter's, but with a masterly building up of elements that should give a scale which St. Peter's does not possess. Its cost will be astronomical and we can but pray that one day it will be completed—not without some modification.

It is impossible in a review to cover the enormous field so brilliantly displayed in these impressive volumes. Mr. Hussey gives a vivid account of the architect's life and work and reveals a delightful puckish fellow, whose immensely hard-working life was entirely devoted to his art. His whimsicality, often too apparent in his work, hid a shy and intensely serious character. The three large volumes of the Architecture illustrate, with excellent photographs and reproduction of working drawings, a thorough selection of the various sides of the immense output. The drawings show the care and study taken over the proportioning of the Orders and refinements of curvature—for example the Cenotaph—not attempted since the Greeks. Mr. Butler describes the buildings with care and much thoughtful and suggestive criticism. He explains the elaborate system of mathematical proportioning which Lutyens finally evolved, a discipline in which he saw a way out of the existing architectural chaos, but one so tied to classical proportions and divorced from structure, that it is difficult to see it as a panacea. Together the team and publishers have produced a fine and fitting memorial to an English architect who had genius, the first since Sir John Soane to whom this word can with confidence be applied.

GEDDES HYSLOP.

The Work of Oscar Niemeyer

By Siamo Papadaki. Price \$8.50 (68/-).

Contemporary Structure in Architecture

By Leonard Michaels. Price \$8.50 (68/-).

Both published by Reinhold Publishing Corporation, New York, U.S.A.

THE Reinhold Publishing Corporation of New York have recently issued two excellent architectural books.

The first is concerned with the work of the Brazilian Architect, Oscar Niemeyer, and gives a complete survey of his work from 1937 onwards. Niemeyer has been very considerably influenced by Le Corbusier with whom he came into contact, when Corbusier was appointed as consultant to the new Ministry of Education and Health building in Rio de Janeiro. This building, designed by a group of Brazilian architects including Niemeyer, is probably the most successful contemporary civic building in the world, the extensive use of adjustable sunshade louvers painted blue on the north facade creates a fascinating animated pattern of light and shadow. In common with other buildings designed by Niemeyer, and illustrated in this book, considerable use has been made on the Ministry of sculptural groups and wall mosaics in coloured ceramic tiles. All the buildings illustrated show Niemeyer's preoccupation with the plastic results of his designs, in the use of flowing curved shapes, bold contours and an intense feeling for pattern and texture. Thirty-six buildings are illustrated including many projects, in some cases sketches of rejected solutions are shown in the Corbusier manner which help the reader to follow the designer's line of thought which led to the finally selected scheme.

The whole feeling of the book, including the method of presentation, is strongly reminiscent of the Corbusier publications, and this is not surprising as the author Siamo Papadaki, a member of the Design Department of Brooklyn College and consultant art director to *Progressive Architecture*, has also written a similar book on Corbusier and his work.

The range of buildings designed by Niemeyer is very wide and includes houses, schools, churches, stadia, hotels, factories and public buildings, but because many of the schemes were commissioned by public authorities the length of time between project drawings and completed building has been unduly long, in addition some have been abandoned as the result of a change in political control. The interesting Municipal Theatre for Belo Horizonte, illustrated on pages 112-115 has for example been abandoned with the structure up to first floor level owing to a change in the administration of Belo Horizonte.

This book is one of the most stimulating architectural publications seen in this country for a long time, its presentation, layout and illustrations are all delightful, and the only criticism that can be made apart from the high cost is that more and better drawings and some structural details would have completed its usefulness.

The publication of an American book written by an English architect is an unusual event, and *Contemporary Structure in Architecture* by Leonard Michaels is an unusual book. It consists of an analysis of practically every major structural system, illustrated with an amazingly wide range of photographs from every country in the world. The first half of the book considers the skeleton frame and the various methods of forming and joining the framing members, whether timber, steel or concrete, in relation to single and

multi-storey buildings. Consideration is also given to the various ways of forming the horizontal infilling to a structural frame, the structural slab and the structural shell.

The second half of the book deals with the relationship of structure to architectural design, and underlines the importance of relating structure to plan, section and massing when designing a contemporary building.

The illustrations, nearly 250 in number, form a major part of the book, and the care with which they have been selected, together with the remarkable completeness of their range, makes the book invaluable to any architect who considers seriously the relationship of the structure of his buildings to their final form. The author has wisely included a large number of progress photographs showing various structural systems in course of erection, as well as illustrations of completed buildings. Many of the photographs show well-known contemporary buildings from new angles, in many cases producing pictures which are less self-conscious than the carefully posed "architectural photographs," but which are of much greater interest to the architect as they show the buildings in question in a more realistic light.

The book is completed by a very comprehensive bibliography which is of considerable value in its own right. Leonard Michaels, who took a degree at Cambridge and then completed his architectural training at the Regent Street Polytechnic School of Architecture, is a member of the MARS group and an associate of the R.I.B.A. His book has an introduction by Eric Mendelsohn and Professor R. A. Cordingley, both of whom have taken a considerable interest in the publishing of this book, which was originally submitted as a thesis for the Regent Street Polytechnic Architectural School diploma examination.

There has for some time been an "extraordinary lack of co-ordination between structural engineering and architecture" and *Contemporary Structure in Architecture* goes a long way in filling this gap in architectural literature.

The typography of the book is excellent, and the only shortcoming is the poor quality of many of the drawings; the use of a good stencil lettering would have made a great improvement.

Although these two books are expensive, 68s. each, they are both to be strongly recommended to contemporary architects and architectural students, and would both be an excellent way of using surplus Christmas book tokens.

EDWARD D. MILLS.

The Architecture of Ancient Greece

By William Bell Dinsmoor, 3rd Edition: Batsford, London, 30s. net.

THIS is the best book on the architecture of ancient Greece in all its phases, that has yet been published in English. Out-of-print for so long, it is now re-published in a new edition with many additions and revisions. The second edition (1927) revising that of Anderson



Mr. Leonard Michaels, M.A., A.R.I.B.A.,
Author of "Contemporary Structure in
Architecture."

and Spiers—*The Architecture of Greece and Rome*—was originally revised during the last war and a long preface, which is dated 1944, is included in the present edition; this does not mean that there was an edition during the war, but that the book was then also revised to that date. For some reason or another, the work seems to have been "mis-laid" and has only now been republished as the 3rd edition. There have been, therefore, two complete revisions which culminate in this new edition; the book has gained in size, authority and in up-to-dateness in consequence.

The work is extremely well annotated throughout, but the monumental bibliography at its end is probably the most comprehensive and certainly the most up-to-date in print. Some fifty-five new illustrations have been added or substituted and on the whole the illustrations serve adequately the whole of the text. It is, however, a pity that those taken over from the original edition have not been more carefully remade or new ones brought into use; for example, the retouched frontispiece or the tired look of some others, of which plate XLIII is one, slightly militate against the full effectiveness of this erudite book. In some of the plans north points have been omitted (e.g. Figs. 117 and 118) and, for some of these, there are textural references to the points of the compass.

A very useful short Glossary and comparative dimension-tables of all the Greek temples (in feet and metres) have been included and the book is very well indexed. Proof-reading has been thorough, for there appear to be but few slips or misplacements (one may be noted on p. 290, 2nd paragraph, where "hexastyle" should surely be "tetrastyle").

It is difficult to refrain from obtaining an impression of the general outlook of the author by means of quotations and the following is taken from the new introduction: "Our business is to impart the lessons of architectural history in such a light as to give the architectural student a clear apprehension of the historic significance of style. Nothing is more likely to wean him from the misuse or feeble copyism of its characteristics than a grasp of their relationship to surrounding circumstances. . . . In what way to use tradition is the problem of modern architecture. In earlier days an architect's retrospect was bound

ded by the works of his grandfather, or at most by the primitive arts of his own district. But now there is this difference, that it ranges over the larger traditions of all architectural history, choosing the good and refusing the bad, and doubtless out of this selective use will come in the fullness of time a living art as noble as Greek, more cosmopolitan than Roman, and perfectly characteristic of the age we live in."

This book is very welcome and should be in the hands of all serious students and on the shelves of scholars, for their reference, for a good number of years to come.

S. ROWLAND PIERCE.

The Dome

A Study in the History of Ideas.
By E. Baldwin Smith. Princeton
University Press. £7.50.

THIS book must inevitably prove to be most alarming and disquieting to the young student of architectural history. It is goodbye to the comfortable theory that the dome was simply a utilitarian form of masonry vaulting which originated somewhere in Asia Minor, was used on a grand scale by the Romans, and was further developed, by means of pendentives, in Byzantine times. In its place we are confronted with something very like Mr. John Summerson's aedicular theory. Regardless of the materials with which a dome can be built, it is now shown to have an intense ideological and sepulchral association far back in history. It was the shape of the ancient ancestral home, the heavenly bowl, the divine helmet, the cosmic egg. A clue to this origin is found in the derivation of our modern word "dome" from the Greek and Latin *domus*, and it was used throughout the early civilised world to describe a revered house, a *Domus Dei*.

The dome appears to have been first constructed in pliable materials in the primitive shelter, and was much later translated into a more permanent structure to make a durable resting-place for the gods and divine rulers. Although the author is not able to trace the beginnings of domical design in all the different areas of antiquity, or check with their parallel development in retarded cultures to-day, he has provided a convincing argument against the accepted theory that the masonry dome originated in Syria. This argument is presented in monumental form—the book measures some 12 in. x 9 in. and is 1½ in. thick—and is reinforced by references to original literary sources and to numismatics, and by some 228 illustrations which are grouped together at the end of the book. As these illustrations are all line blocks, they would have fitted in more happily in the text itself, and in view of the fact that many plans and sections are published here for the first time, it is a pity that some indication of scale was not given.

But these are minor criticisms. The problem of the origin of the dome can no longer be satisfactorily answered by the *Oriental oder Rom* controversy. Baldwin Smith has shown in a most convincing way that there were various domical traditions in both the East and the West, and that the dome evolved at

a very early stage of man's development, long before there were monumental temples and churches with domes of stone or brick, to express a symbolic ideology.

CECIL STEWART.

Town and Country Planning Textbook

Edited by A. P. R. R. £2 2s.

EVERY planning office is desperate for qualified and experienced planning assistants. The future looks bleak in this respect. There are insufficient schools for the training of planners, or perhaps it would be more appropriate to say far too few attending the too few schools. Those struggling to qualify externally are finding it very hard going, so hard that many will fall by the wayside. This coming year's entrants for the Intermediate and Final Examinations of the Joint Board will, it is feared, be the lowest numerically for many years. The recent changes in the syllabus have made it far more difficult for the external student. As one student aptly put it, the dice is heavily loaded against them.

It is with this background in mind that I welcome the publication of this textbook. I might add that it has likewise been welcomed by the whole of my office staff, who, owing to difficulties of distance from a School of Planning and finance, are having to study independently and at night. The reason for this appreciation of the book in planning circles, both by student and qualified planners, is that the aim of the book is to provide the student with as complete a course of study in the theory and practice of Town and Country Planning as is possible within the compass of a single volume. No small task, and it has necessitated a volume of over 600 pages and 3 inches in thickness.

The object of the Authors has been to meet the needs of those students who are unable to attend a school of planning recognised by the Town Planning Institute, but who may wish to pursue their studies in their own time and sit for the external examinations of the Institute. The answer is a correspondence course in book form. A correspondence course for £2 2s. As a book only, the price is high for students but if looked upon as a correspondence course it is remarkably cheap.

When the Schuster Committee published its findings on the qualification of planners some of the daily papers heralded the publication "How to be a Planner for 2s. 6d." The authors of this book quite wisely do not claim that by reading the contents you will become a planner. "Just as planning is not the work of one brain but rather the result of a joint effort of many individuals trained previously in different specialist fields, so the evolution of this book should be recognised as the product of such a team." The results of the team are chapters giving outlines of a number of subjects of which the planner must be aware before he can arrive at judgments or make sound proposals. The planner must know the possibilities and limitations of each of them, and recognise the stage at which

expert advice is necessary. So as to assist the planner, the aim of the book has been to give him some grounding in the main principles of practice and theory of each aspect of planning. If he desires to supplement any particular subject, a very comprehensive bibliography is provided.

Many students will have found difficulty in procuring textbooks dealing with all subjects and to meet this difficulty more emphasis has been given to subjects which are not yet fully treated in standard works.

There are eight main sections, each section being sub-divided into particular aspects of the main subject. The general sections deal with geography; planning surveying; social surveying; transport; industry and power; law and economics; and conclusion.

The introduction is by Professor Holford and is a masterly contribution to planning. It is brimming with wisdom combined with that quality which should be found in all true planners—commonsense. I cannot refrain from quoting one sentence from this introduction: "Do not make any planning scheme dependent on developments which you can neither initiate nor control." It will be interesting to see how many schemes fall down on this simple but vital point.

The Association for Planning and Regional Reconstruction, the School of Planning and Research for Regional Development and the various authors of the chapters, are to be congratulated for their contribution to the cause of planning and particularly for the help this book will bring to the many external students struggling against odds which have not been by any means lightened by the new syllabus.

The Town Planning Review

THE latest issue, Number 3 of Volume 21 of the *Town Planning Review*, has managed not only to maintain its usual high standard, but has in this issue combined both an instructional and interesting series of articles. This has been achieved by a careful selection of topics and what is equally important, the contributors of the topics are of a very high standing.

Who is better qualified to write on Ebenezer Howard than F. J. Osborn? As this year marks the centenary of Ebenezer Howard's birth, the Review publishes in this number an interpretative study of his life and the evolution of his ideas. Mr. Osborn in the articles draws upon the experience of sixteen years' collaboration with him.

The historical article by R. W. Hutchinson is devoted to Prehistoric Town Planning in Crete. With the full knowledge that I may be criticised by the younger school of being old-fashioned, I must admit I enjoyed Mr. Hutchinson's article. He not only has a practical knowledge of his subject, but can make it most interesting.

S. L. G. Beaufoy contributes an article on Well Hall Estate, Eltham, and with a twinkle in his eyes as he wrote the title added a sub-title—"an example of good housing built in 1915." The Editor in introducing Mr. Beaufoy states he "has had a very wide experience in planning." Putting it another way, planning in this country owes much to

Mr. Beaufoy; more than will ever be realised. Only those who worked with him in the Ministry in the early days, and those planning officers who had the fortune to meet him in the field, have any conception of his unceasing faith and drive in the cause of planning, particularly three-dimensional.

His present article should be read by all who have any interest in "good housing."

Henry T. Hough, City Engineer, Planning Officer and Surveyor to the Liverpool Corporation, writes on the large corporate estate which Liverpool has for over three centuries been building up.

Professor Allen contributes the sixth of the Review's series of articles on planning schools. Durham University was the first in Britain to organise an undergraduate course in planning.

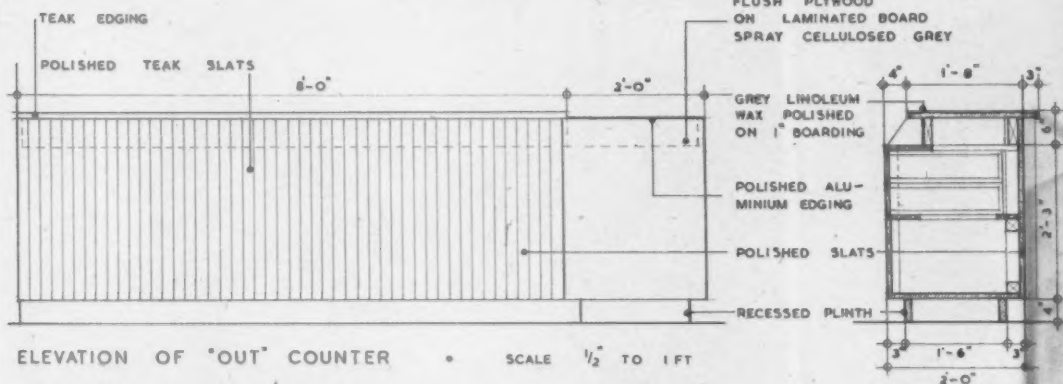
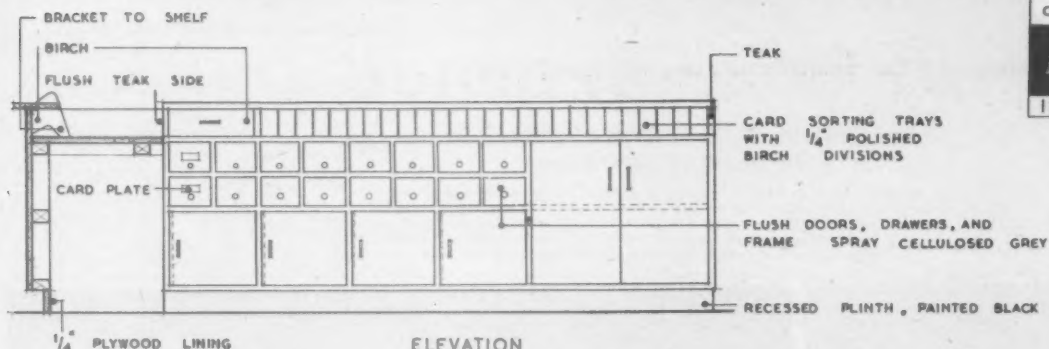
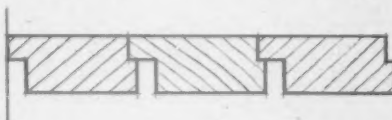
M. E. TAYLOR

One Thousand Years

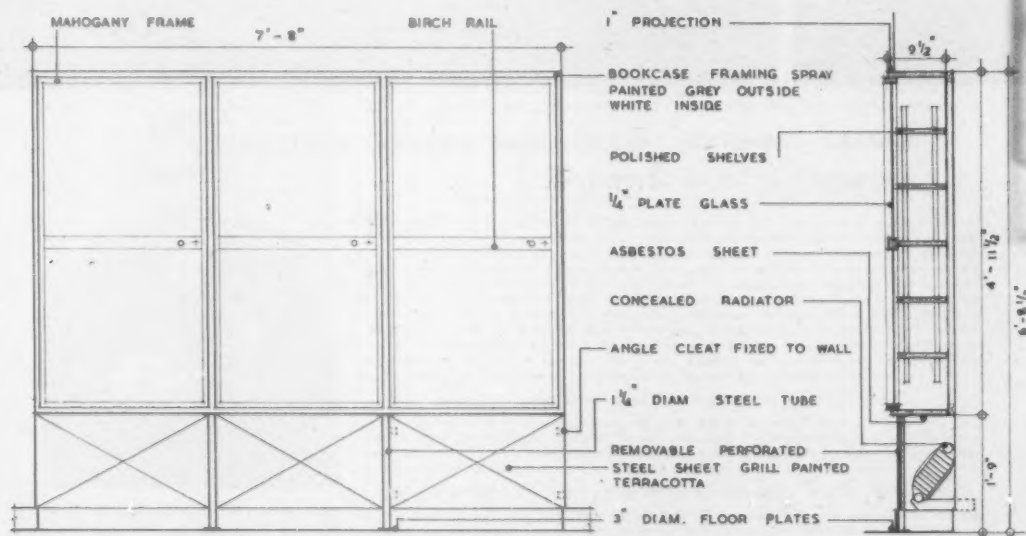
The story of ancient Earls Barton. By the Rev. L. A. Ewart. (Churchman Publ. Coy. 5s.)

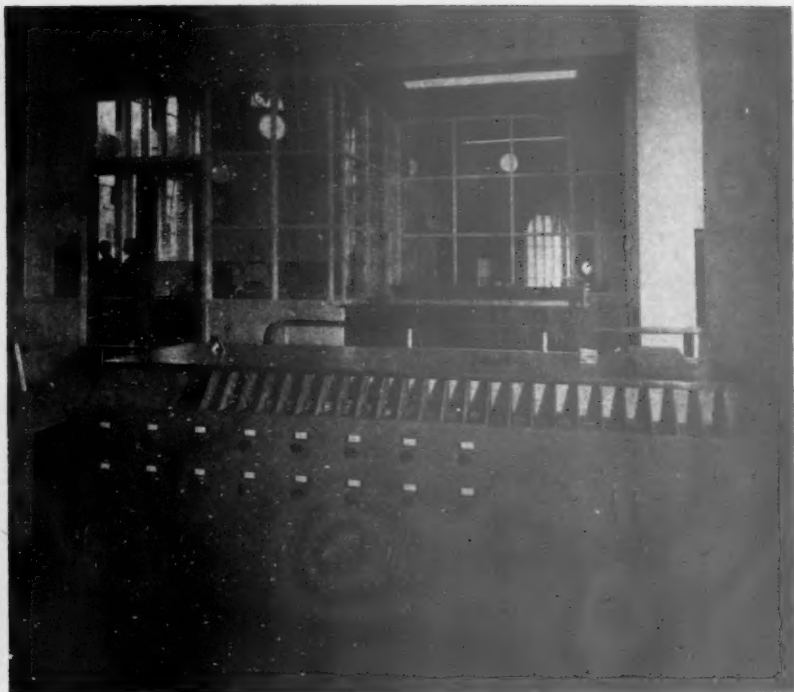
NORTHAMPTONSHIRE is best known to students of church architecture for the supreme quality of its work from the 13th century onwards, in particular for its magnificent collection of spires that can be seen in their dozens from some of the county's elevated points. But in the churches of Brixworth, Barnack and Earls Barton, the county also has three of our greatest pre-Conquest treasures, and this little book (whose price one wishes were less) gives much information both on the church and the general history of Earls Barton. The quality of the world-famous tower, with its Saxon balusters, doors, windows, long and short quoins, 15th century battlements, and elaborate 10th century adornment in a pattern of pilaster strips, is apparent from the photographs alone, and among a wide range of religious and historical matter Mr. Ewart tells no more of the architectural importance of his church's tower than can be deduced from many of the standard works. But he does well to point out that the church has other merits, notably in its rich Norman work and good 15th century screen; these are two features in which Northants, for all its being a church-trotter's paradise, is not otherwise rich. It is therefore a pity that the pictures do not include one of the chevron moulding and beak heads of the South door. One mistake Mr. Ewart has allowed to creep in: medieval rood lofts can be supported by fan vaultings, but not fan tracery, for tracery can only be in windows and fan tracery does not exist. The church apart, it is also interesting to know that Earls Barton's old manor has been converted into modern flats, and when describing the church Mr. Ewart takes account of the modern furnishings and heating arrangements. He has also provided a novel solution to the internal problem of finding church lights. When you want to study his chancel on a dull day you do not hunt for a switchbox in the vestry. You put sixpence in a slot meter and so get three minutes of electric light.

BRYAN LITTLE.

ELEVATION OF "OUT" COUNTER • SCALE $\frac{1}{2}$ " TO 1 FT $\frac{1}{2}$ " F.S. DETAIL OF SLATS

SECTION

ELEVATION OF BOOKCASE IN REFERENCE ROOM • SCALE $\frac{1}{2}$ " TO 1 FT • SECTION



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NEWS of the BUILDING INDUSTRY

THE PRESIDENT . . . and

This year's President of the National Federation of Building Trades Employers, Councillor Stephen Hudson whose photograph was published in the A. & B.N. of January 19, 1951, is a Director of the firm of Robert Hudson & Sons (Contractors) Ltd., of Sunderland. The business was founded by his grandfather in 1872. The firm carries out a wide variety of general contract work and a certain amount of local authority housing work.

Born in 1902, Mr. Hudson was educated at Bede School, Sunderland, and at Sedburgh. He is married and has one son and one daughter.

In addition to his own business, Mr. Hudson is a Director of the North of England Building Society and was formerly Chairman of the Wearside Housing Association.

Mr. Hudson has been the Councillor for the Thornhill Ward of Sunderland since 1944 and as Conservative candidate contested the Sunderland North division in the General Election of February, 1950. He is a member of the Sunderland Rotary Club and has been Hon. Treasurer of the Durham Road Methodist Church since 1941. He is also the Hon. Organist at this Church.

During World War II, he served as a part-time Company Officer in the National Fire Service.

SENIOR VICE-PRESIDENT

Mr. J. Ian Robertson, F.I.O.B., is a director of Thomas Lowe & Sons Ltd., building and civil engineering contractors, of Burton-on-Trent. The firm, which has branches in London and Birmingham, was founded in 1825.

Mr. Robertson, who is 44, was educated at Pembroke Lodge, Bournemouth, and Clifton College. During the war he served in North Africa and Italy with the Royal Engineers and was mentioned in despatches.

Since 1946 Mr. Robertson has been a member of the Midland Regional Joint Committee for the Building Industry and became its Chairman in 1948. He is also a member of the Joint Advisory Committee to No. 9 Region of the Ministry of Works.

OF THE N.F.B.T.E.



Mr. J. Ian Robertson, F.I.O.B., Senior Vice-President of the National Federation of Building Trades Employers.

NATIONAL FEDERATION OF BUILDING TRADES EMPLOYERS

Annual Dinner and General Meeting

The annual dinner of the National Federation of Building Trades Employers at the Dorchester Hotel on Tuesday, January 30 was notable, quite apart from its success as a social evening, for the excellence of the after dinner speeches. There were lively and good natured exchanges between Mr. Robert O. Lloyd who proposed the toast of His Majesty's Government and Mr. Richard Rapier Stokes, Minister of Works who replied.

Councillor Stephen Hudson who was elected President at the Annual General Meeting proposed the toast of the guests in a speech which augured well for his term of office. The impression the new President created was one of great sincerity coupled with a delightful sense of humour. The Dowager Marchioness of Reading replied for the guests in a speech which matched in wit those of the men speakers.

THE ANNUAL GENERAL MEETING

of the

NATIONAL FEDERATION OF BUILDING TRADES EMPLOYERS.

Opening the annual general meeting of the Federation which took place on January 31, Mr. Robert O. Lloyd, the retiring President referred to the Defence Plan and its likely effects on the building industry.

Mr. Lloyd said: "Two warnings are necessary in connection with the reference to civil building in the Prime Minister's defence speech.

The first is that experience has shown that a reduction in the licensing limit merely drives work into the black market.

The second is that the provision of houses should be regarded as part and parcel of our defence programme.

One of the lessons of the last war was that if there is a shortage of living accommodation, schemes such as those for the evacuation of mothers and children, for the billeting of troops and transferred war-workers, and for the finding of shelter for those whose homes are destroyed by air-raids, cannot properly be carried out. The need for accommodation is serious and unless housing is speeded up we might well find ourselves in an impossible position in the event of war.

This is no time for political prejudice. We want more houses at the lowest possible cost to the rates and taxes. This can be done if Mr. Dalton makes it one of his first jobs to sweep away the 4:1 ratio. To force families who are willing to build at no cost to public funds, to live in heavily subsidised municipal dwellings is false economy.

Until the materials pipe-lines are full, our efforts to achieve greater efficiency and reduced costs, by means of better planning in advance, of improved site organization, of the better training of all from the management down to the operative, and of the introduction of payment by results schemes on a wider basis, will be seriously handicapped. No operative can be expected to give of his best when he realizes that by so doing he is working himself out of materials and possibly out of a job. We know that the defence programme will make heavy demands on those materials, we must urgently need, such as bricks, steel, cement and timber. But we must have those essential materials.

We do not know yet what precise claims the defence programme will make upon us. Some switching from one type of work to another seems inevitable. In any event, our duty now is to profit from the reports of the Working Party and of the American Team, to step up efficiency in every direction, and to go all out in a determined effort to introduce payment by results schemes under new agreement on every possible job. Rise in cost transcends all other consideration."

A report of the discussion which took place on the annual report is on page 187.

THE ANNUAL REPORT

Extracts from the 73rd Annual Report of the N.F.B.T.E.

THE task immediately before the Building Industry, and equally every other industry, is to do whatever is possible in the prevailing conditions to increase its efficiency in order that, by higher productivity, the harsh economic consequences of rearmament, although they cannot be avoided, may be mitigated. The lessons to be learned, by individual members of the industry as well as by H.M. Government and the national organizations, from the reports of the Working Party and the Anglo-American Productivity Team are thus shown to have an even greater importance than was apparent at the time of their publication.

Through circumstances largely beyond its control, the Building Industry has been prevented from equalling the great increases in productivity which other industries have registered since the end of the war. We do not doubt, however, that in the emergency now facing the nation, our industry will display the same spirit as in the dark days of 1940,

but . . . the time for making the effort is now.

"We do not know at this stage precisely what will be the effect of the rearmament programme upon the Building Industry," says the Report. "If the present state of 'luxe-war' continues, the cost of rearmament may compel the Government to reduce its expenditure in other directions and, in spite of ministerial protests,

the subsidized housing programme may have to be curtailed."

The Report points out that housing generally, and particularly the size of the housing programme, has tended increasingly to become a party political issue and quotes from the

(continued on page 187)



STRUCTURE A7/1 FIXING

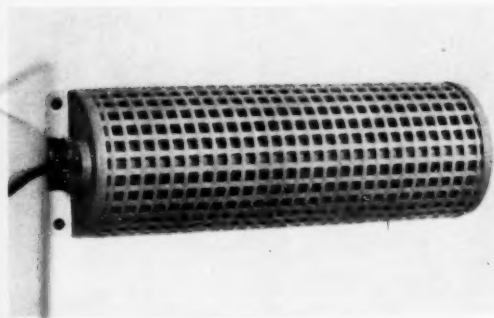
Fixing plugs or inserts, as shown in the picture, can be cast into concrete walls to avoid subsequent drilling. The plugs are made from cementitious powders and asbestos. The details show typical "inserts" which will take any type of wood screw.

MOSAICS

The names and addresses of manufacturers of any item illustrated in MOSAICS, together with more detailed information relating to their products—including price and availability—will be forwarded to readers on request.

Letters should quote the serial number and be addressed to:

The Associate Editor,
The Architect and Building News,
Dorset House,
Stamford Street, S.E.1.
Please mark the envelope MOSAICS.



SERVICES B3/11 HEATING

No longer new, having been first produced in 1948, this electric airing cupboard heater consumes 1 unit every 10 hours. The heater weighs 5 lb., has a 3 in. projection and measures 6 in. high by 20½ in. in length. Finish is in ivory tan. Cost including purchase tax is £3 11s. 5d.

CORRECTION

In the Mosaics Index published in the A. & B. N. of January 26, 1951, item C6/1 was wrongly attributed to Messrs. Crane. This should read:

C6/1—Gas Cooker ... 8.12.50
De la Rue Ltd.

M.O.W. LECTURES

February 13

Introduction to Site Costing for Builders.
7.0 p.m. at the Technical College, WORKINGTON.

February 14

Good Practice in Plumbing.
7.0 p.m. at Creighton School, Strand Road, CARLISLE.

Mechanisation of Small Jobs.
8.0 p.m. at South East London Technical College, LEWISHAM WAY, S.E.4.

Structural use of Steel in Building.
7.15 p.m. at Reception Room, Guildhall, KINGSTON-UPON-HULL.

Introduction to Programming and Progressing for Builders.
7.15 p.m. at the Civic Centre, Guildhall, SWANSEA.

February 15

The Building (Safety Health and Welfare) Regulations, 1948.
7.15 p.m. at the Town Hall, KIRK-CALDY.

February 19

Essentials of Good Concreting.
7.15 p.m. at Little Theatre, Education Buildings, Guild Street, BURTON-ON-TRENT.

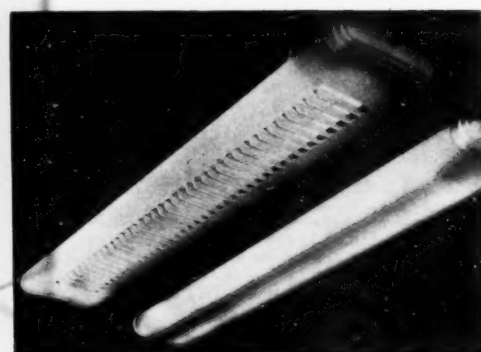
February 20

Mining Subsidence Problems Affecting Housing Construction.
7.15 p.m. at the Technical College, Bell Street, WAKEFIELD.

Some Mechanical Aids Developed for Building.
7.0 p.m. at William Newton School, Junction Road, Norton, STOCKTON-ON-TEES.

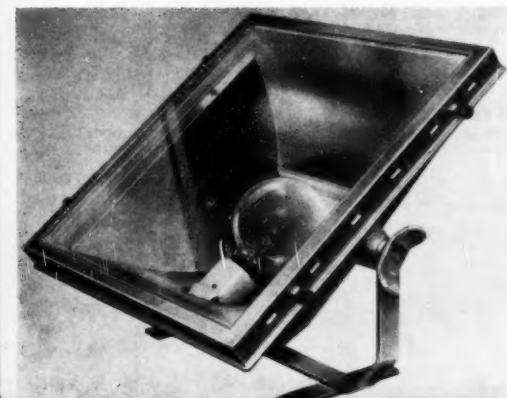
Site Investigation.
7.15 p.m. at the Technical College, Manchester Road, BOLTON.

The Building (Safety Health and Welfare) Regulations, 1948.
7.15 p.m. at West Hall, Christian Institute, Bothwell Street, GLASGOW.



SERVICES B1/8 LIGHTING

A new fitting housing two 80-watt fluorescent lamps. Alternative designs of diffuser are shown. The louvred pattern is suitable where high level display lighting is required. End caps are of opal "Perspex". The control gear and special shallow chassis are the same for both models. Starter switch and quick-start control (the latter at slightly increased cost) are available. Overall dimensions are 5 ft. 7½ in. long by 12 in. wide by 4½ in. deep.



SERVICES B1/9 LIGHTING

Designed to meet the demand for economical floodlighting for the Festival of Britain, this new model is a wide angle type with a rust-proofed stove enamelled sheet-steel body. The price is £12. The angle of throw can be adjusted and colour screens can be fitted. The frame for the toughened glass front overlaps the body to provide ventilation without moisture penetration.

GOOD, BAD OR INDIFFERENT?

No. 22—By A. FOREMAN

Fittings for Sanitary Appliances

I HAVE noticed from time to time some very poor traps and waste fittings for sanitary appliances and many of these may be expected to cause trouble sooner or later. Two of the main defects are—rough interior surfaces and poor plated finishes although the latter do not directly affect efficiency of operation.

Before installation it is wise to examine all cast traps very carefully to see that they are reasonably smooth internally where roughness causes the adherence of grease and hair and ultimate stoppage, and also make sure that there are no sand holes which have been plugged or patched. The normal types of cast traps have been made of brass, which is, of course, a copper alloy, and are sometimes of very variable quality as they are often made from scrap metal. A later development has been to make traps of hot pressings when the material has to be of a consistent quality, usually rather better than that used for the cast brass types and the resultant product is usually more satisfactory and gives a better surface for plated finishes.

The most recent development is the solid drawn copper trap made from copper tube. This seems to have a number of advantages and they are so easy to install and to maintain. This type of trap often does not need an inspection eye as the trap is made in two pieces, one of which is easily moved for cleaning by disconnecting at each end. These traps are available in 1½ in., 1¾ in. and 2 in. sizes with 1½ in. or 3 in. seals. A point which needs watching when they are used under baths is they may come very near the floor, dependent on

the height of the feet of the bath.

When special finishes such as plating are required this type of trap lends itself to good plated finishes rather better than do the cast and hot pressed types. When special finishes such as chromium plating are needed they usually have to be ordered and it is wise to be sure that chromium plated types have been first coated with nickel. Traps are subjected to very rapid temperature changes which makes good quality plating specially desirable. Cast copper alloy traps are probably rather less susceptible to external damage than solid drawn copper or lead. Rumour has it that a revision of B.S.1184, which covers brass and copper traps, is being prepared and will include the solid drawn type.

Solid drawn copper traps in two pieces with a centre joint are very useful for installation in awkward places such as in the pedestals to basins as the outlet may be turned in almost any direction.

Very often, probably to save a small amount of money, traps and wastes are selected from sizes which are really too small and it is desirable to empty sanitary fittings as quickly as possible to reduce the deposit of dirt on the surfaces of the fittings as well as to eliminate nuisance to the users. Basins should have traps and wastes not less than 1½ in. bore, baths at least 1½ in. and sinks 1½ in. or better 2 in. bore.

Waste fittings to sanitary appliances are sometimes the cause of installation troubles. Most earthenware basins are now made with bevelled outlets and it is of the utmost importance to use waste fittings with properly bevelled flanges to fit the outlets of the ware, if a neat joint is to be made and incidentally to avoid breaking the basin when making the joint. B.S.1184 covers the proper shape of waste outlets

for these fittings and square edged flanges just do not fit basins with bevelled outlets, although the bevelled flange types can be installed in fittings with rebated outlets such as are general in sinks and basins made of fireclay.

It seems that far too few makers and suppliers take sufficient care with the quality of the plating of outlets and chains and I know few normal quality fittings of these types through which the basic brass does not tend to show within a few years. This trouble may be due to the effect of cleaning materials and particularly some of the washing liquids and powders (most basins are extensively used for washing "smalls"), but as the use of these materials is usual it is desirable that the makers should anticipate their use and it is probable that the extra cost involved would be very small.

Another small matter of quality, but one which is the cause of much annoyance, is that insufficient attention has been paid to plugs, chains and stays for basins. Just any piece of chain and types, such as ball chains, are not good enough to survive the heavy wear they seem to be subjected to. It seems that the type most desirable for service and the one which tends to retain its plating longest, is that made of thick brass wire with large oval links. Good shackles at each end are of the utmost importance. The chain stays should pass through the ware and be fitted with a leather washer under the backnut to prevent slackening. Plugs themselves are also troublesome and I believe the most serviceable are those made of hard composition rather than of the softer types of rubber or of metal; soft rubber is quickly cut by the edge of the metal of the outlet while metal plugs tend to bind.

PRESTRESSED CONCRETE: RETROSPECT AND PROSPECT

No. 2.—By Rolt Hammond, A.C.G.I., A.M.I.C.E.

THE design referred to in the last article is still not a practical solution to the bridging problem since we were relying upon rock abutments to provide the necessary reaction against which the hydraulic jack could operate in order to apply the prestressing load to the slab.

An alternative method of prestressing must therefore be sought so let us now cast the slab on the soffit shutter, leaving holes in the concrete along the line of action of the hydraulic jack. Tie rods fitted with nuts and washers are then introduced into these holes, and the nuts are tightened against the ends of the concrete slab until the stress in the rods is 16,000 lbs. per sq. in. We are reminded that the compressive force applied was 119 tons so that the tie rods will require to have an area of 16.7 sq. in. of mild steel. This would clearly be impracticable, because there would not be enough room for these bars in one layer. Even if the bars could be introduced, the system would not work because of losses due to creep and shrinkage.

This brings us to the solution provided by prestressing, employing as reinforcement high tensile cold drawn steel wire

with an ultimate tensile strength of 120,000 lbs. per sq. in., at which figure we shall require about 2.57 sq. in. of steel and this is found to be about 15 per cent. higher than is necessary by direct computation. This additional reinforcement is introduced with the object of covering losses due to creep and shrinkage; thus, if it is decided to use wire with a diameter of 0.2 in., we shall need 88 wires in each foot width of slab. Here is a practical solution, because we can use two cables each of 44 wires, placed side by side in the bottom of the slab, the ends of the cables being suitably anchored.

Convenient hydraulic jacks have been designed and successfully used for applying the prestressing load, the precise value of which is given on a pressure gauge connected to the jack. When prestressing is done at 120,000 lbs. per sq. in. this stress decreases down to about 105,000 lbs. per sq. in., due to creep and shrinkage. When the superimposed load comes on the beam, this latter stress increases only by 3,000 or 4,000 lbs.; thus, the steel reinforcement of a prestressed beam is tested at the time when the prestress is applied to a

stress about 10 per cent. higher than the steel will ever be called upon to carry in the future.

The above simple example, illustrates the advantage to be derived from prestressed concrete as a structural material. Recent developments in prestressed work include His Majesty's "Stationery Office, Sighthill, Edinburgh. Here prestressing has been used on the 200 main and 750 secondary beams, and it has been claimed that by this means a saving of about 60 per cent. has been effected compared with the steel required for a steel framed structure of similar size.

This building is a particularly interesting example of prestressed construction, because the floor loads are exceptionally heavy, the ground floor having been designed to take 10 cwt. per sq. ft. and the first and second floors 3 cwt. per sq. ft. The beams were cast in a special yard and lifted into place after the necessary prestressing load had been applied by hydraulic jacks, using wedge anchorages. This particular building was chosen for the experiment, because the

(Illustrated in the A. & B.N. of Jan. 26, 1951)

design permitted of a large repetition of a small number of differing units.

The total amount of steel used, including reinforcement for the foundations, was 210 tons; it has been calculated that a similar building with a structural steel frame would require 950 tons of mild steel or 800 tons of high tensile steel; thus prestressed concrete construction resulted in a saving of between 600 and 700 tons of steel in this one building. It should be pointed out, however, that prestressing was applied only to the floor beams, the columns being of normal reinforced concrete construction since there is no material advantage in using prestressed concrete for members subjected to compressive stresses only.

Prestressed concrete has made far greater headway on the Continent however

than in Great Britain. Among the more outstanding works undertaken in recent years, which of themselves are sufficient to bring out the manifest advantages of this form of construction is the development of Melsbroeck, Belgium, as the civil airport for the country, some large hangars have been constructed for Sabena. Contractors submitted estimates for alternative designs, so that here we have an excellent opportunity of comparing various methods of construction; designs were submitted in structural steel, conventional reinforced concrete and prestressed concrete. That finally adopted was in prestressed concrete, using a modified form of the Magnel-Blaton sandwich cable. This and other continental examples will be described in the next article.

(To be continued)

DEVELOPMENT CHARGES—A SURVEYOR'S PRACTICE NOTES

By W. R. Brackett, O.B.E., T.D., B.Sc. F.R.I.C.S.

Extracts from a paper read at an Ordinary General Meeting of the Royal Institute of Chartered Surveyors on January 8, 1951.

ASSESSMENT OF CHARGE

The main direction to the Central Land Board as to the assessment of Charge is contained in Development Charge Regulations (S.I. 1189 of 1948) which provides that it:

"shall not be more than the amount which . . . represents the additional value measured by normal processes of valuation of the land due to planning permission for a particular development."

The questions arising from this definition will be discussed later, but I feel that before doing so I should mention the other and more nebulous direction in these Regulations, which is that:

"Development Charge shall be determined so as to secure so far as is practicable that land can be freely and readily bought and sold . . . in the open market at a price neither greater nor less than its value for its existing use."

This is euphemistically described as the Board's "Governing Principle." It is, you will note, a political direction whereas the former is technical.

To my mind it involves a contradiction of the former direction which requires that the charge shall not exceed the value created by the planning permission. This is illustrated in the following examples.

Example 1

"A man can obtain a licence to build a house which, when complete, will cost him £1,400. A comparable house built before licensing regulations and now available with vacant possession, would cost him £2,250. He would prefer the new house and is prepared by overt or other means to pay up to £500 for his 400 sq. yd. plot in terms of price and Charge. This plot would have sold before the Act for £120.

In today's conditions, the difference between £120 and £500 is mainly accounted for by the value of the licence *not* by the planning consent. The man who has been granted a licence is prepared to pay substantially more than "existing use value" to secure his plot, but the "Governing Principle" would seem to leave the Board free to fix such a rate of charge that he could not afford to build unless he bought his plot at "existing use value." I submit

that to do so would be to charge the value of the licence *not* the Planning Permission.

Example 2

The owner of a remote one acre moorland site worth £20 per acre at most, proposes to build on it a factory which a Government Department has contracted to lease for 99 years at £2,000 per annum on a full repairing lease. The land before the Act could readily have been bought for its agricultural value regardless of the use to which it was to be put.

The District Valuer proposes a charge calculated as follows:

Net Rent	£2,000
Y.P. as well secured for 99 years	20
	40,000
Less cost of construction, 20,000 sq. ft. at 30s.	£30,000
Less developer's profit at 15 per cent.	6,000
	36,000

Leaving as Development Charge . . . £4,000

If the calculation be correct, I suggest that the difference between £20 and £4,000 is created not by the Planning Consent, but by the inexperience of the negotiator—or by the fact that the developer regards 25 per cent. or so and not 15 per cent. as a proper developer's profit.

METHODS OF VALUATION

The Development Charge Regulations (S.I. 1189 of 1948) provide that the charge must be measured by normal processes of valuation and the Central Land Board in "Practice Notes" states that the method of £X per acre or other unit will be regarded as a normal process of valuation where that reflects the operation of the market.

Processes of valuation have no special sanctity but are merely the tools of a valuer's trade. And like other tools of trade their design has to be modified from time to time to suit changing conditions. I feel, therefore, that we are in no way limited to methods as taught in the text books in the past and indeed, that the profession is challenged to evolve new methods if they are called for.

There is one method of valuation—the only one of the arithmetical methods

to be mentioned in Practice Notes—to which I must refer because it is so unsatisfactory. That is the "Before and After" method which is an adaptation of the familiar "Residual" method of arriving at a site value in which the value of a building is deducted from the capitalized value of the rents derived from it and the result treated as site value.

It is a method which is theoretically sound but often fails because it is not possible to forecast the variables in the calculation with sufficient precision. I will take one example only.

Example 3

A much under-developed central site carries a shop and upper parts let for £500 per annum net, but is capable of redevelopment to show an income of £1,000 per annum net.

The developer's surveyor suggests a Development Charge calculated as follows:

Rents	£1,000
Y.P.	20
	£20,000
Less developers' profit, 10 per cent.	2,000
Cost of construction	8,000
Loss of rent during rebuilding	500
	10,500
	9,500

Refusal Value	
Rents	£500
Y.P.	16
	8,000
Development Charge	£1,500

The District Valuer, however, produces the following assessment of the charge, and it will be seen that though the charge is very different, the changes in the figures used are relatively small.

Consent Value	
Rents	£1,000
Y.P. as very well secured	22
	£22,000
Less developer's profit, 5 per cent.	1,100
Cost of construction	7,000
Loss of rent during rebuilding	500
	8,600
	13,400

Refusal Value	
Rents	£500
Y.P.	15
	7,500

Leaving as Development Charge . . . £5,900

The differences in figures are within such small margins as to make them incapable of proof and any method of taxation which can yield so radically different results without practical possibility of proof by either party must open the door to mere bargaining which is most undesirable.

I personally am sorry that Practice Notes refer as they do to processes of valuation because there is offered to valuers on either side a temptation to play tricks with figures rather than to value in a commonsense way.

The remainder of Mr. Brackett's paper dealt with the Amount of Charges, Refusal Value and Consent Value. Extracts from this second part of the paper will be published next week.



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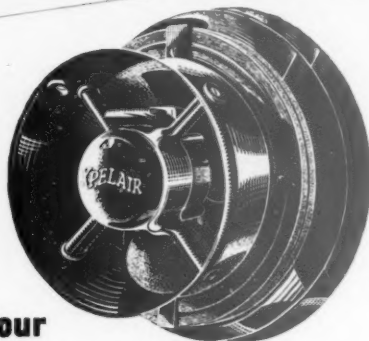
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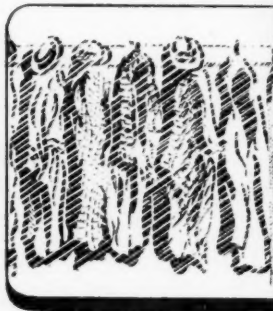
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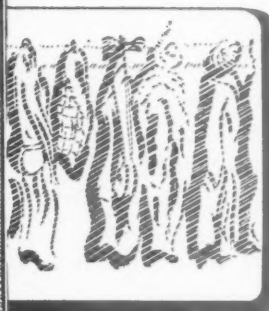
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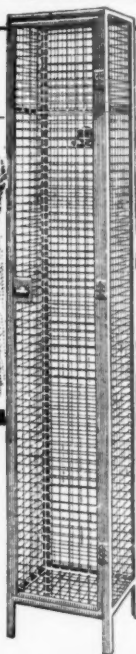
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INTEREST

IN THE DISCUSSION on the seventy-third annual report of the N.F.B.T.E. which took place at the annual general meeting on January 31, 1951, incentives proved to be a matter of controversy.

A southern counties member said that he hoped members would refrain from speaking against incentives. They must be made to work. The speaker considered that the report gave no constructive lead and he suggested that London should give a lead in establishing (1) defined schemes, with fixed targets, (2) fixed percentages and (3) loyalty from all members and no more in-lieu payments.

From the north however, a member saw that there was danger in the National Body deciding output for industry. This approach he said would lead eventually to Nationalization. He quoted the engineering industry which, when it had gone off piece work had suffered a 25 per cent reduction in output.

Both views had their supporters in the meeting. Mr. Robert O. Lloyd pointed out that full-employment, a policy accepted by all parties as necessary, was nevertheless part of the cause of present troubles. The solution lies in making full employment work and that is a duty of employers.

A Colchester member drew attention to the War Department practice of inviting tenders on a fixed price basis and hoped that the contracts committee would do something to alter this practice.

Mr. Dudley F. Cox suggested that the Government should not, as is now the case, be able to alter contract clauses without prior consultation and through negotiation with the industry.

Mr. W. W. Sappcott of the joint contracts tribunal stated that the Federation has asked to be consulted but that industry could not dictate to Government departments.

On the subject of education, Mr. Woodbine Parish pointed out the need for all employers to make themselves fully conversant with the special courses which were now available for all grades of the industry from management to operative, and to know what the purpose of each course is.

One member stated that the rate of pay to apprentices was too high for builders to afford. This was countered however, by the member who said that "to get good operatives we must be prepared to pay." The future he said would bring more difficulties in obtaining higher standards of craftsmanship which, in his view, is linked with greater production. If we want good material we must pay the proper market price.

THE SCOTTISH NATIONAL JOINT COUNCIL for the Building Industry have authorized the following rates payable on or after February 5, 1951: Craftsmen 2/11 per hour, Labourers 2/5½ per hour. Resulting from the above decision, the revised rates for apprentices and female labour fall to be paid as from the same date.

A VISIT TO THE FESTIVAL OF BRITAIN is to be offered to all their employees by Messrs. Mather & Platt Ltd., to mark the celebration of fifty years in their present headquarters; one hundred years since the firm first used its present title; and one hundred and fifty years since the parent company started to produce machinery for the textile trade.

(continued from page 183)

annual report of the Federation of Registered House-Builders (affiliated to the National Federation), as follows:

"The test facing the private house-builder may well be whether, with greater freedom and sufficient materials, he can, within a reasonably short period, produce houses at an additional rate of 100,000 a year with a head of labour not substantially in excess of that devoted to house-building at the present time.

The crux of the problem is materials.

Given an ample supply of these and the consequent rise in output, and given the scope which would enable him to develop estates instead of building piece-meal, there is no doubt but that the private house-builder would make a substantial and ever-increasing contribution."

The policy of the Federation on labour relations had continued to aim at promoting:— (i) stability of employment conditions; (ii) the timely removal of any genuine grievances; (iii) good job-organization (including welfare arrangements); and (iv) the devising of positive incentives to better individual output.

Reference is made in the Report to the Joint Settlement on Incentives reached towards the end of 1950. The Report emphasizes that the main task must be to ensure (i) that the nationally agreed principles are well understood both by firms and operatives; (ii) that housing arrangements on a satisfactory basis (yielding higher earnings for higher output) become the general practice.

In noting the increased proportion of registered apprentices who completed their apprenticeship in the 12 months ended September 30, the Report points out that while the Federation welcomes this trend, it takes the view that "the issue of Completion Certificates by the B.A.T.C. can only be supplementary to the old-established practice of the Master (and nowadays the Representative) endorsing the apprentice's actual Deed of Indenture. Such endorsements must continue to be recognized as the most appropriate evidence of the satisfactory completion of an apprenticeship."

The Standing Committee on the Training of General Foremen is anxious to extend training to levels of supervision other than those catered for by the present rather exacting general foremanship course, introduced in 1948, which sets a higher standard than is everywhere necessary. "In this connection," says the Report, "the Committee has been considering whether a course could not be devised for the owner-manager or foreman of the small jobbing and maintenance business and whether some modified form of the present course could not be approved for schools in areas where there is little demand for the type of general foreman who must possess the wide experience required by the full course. Two schools in London have agreed to run experimental courses of this sort."

STRONG ANNUAL RECRUITMENT

of young men of the best type is needed if the Building Industry is to continue its function as an efficient service to the nation. This can only be ensured by improving the opportunities the industry offers for training and technical advancement. In saying this at the Annual General Meeting of the Southern Counties Federation of Building Trades Employers recently Mr. Robert O. Lloyd added that these opportunities were already such that any youth with the desire to make headway need have no hesitation in choosing building as a career, but he pointed out that further extension and development of instructional courses—particularly for supervisory personnel—are receiving constant attention to provide facilities for education and training second to none.

AN INCREASE in the housing allowance of timber from 1.6 to 2.0 standards per 1000 square feet of floor area was suggested as a logical first step in progression relaxation of control by Mr. Phillip O. Reece, Director of the Timber Development Association in a speech at Hull on January 25.

In making this proposal Mr. Reece said that until the suspended timber ground floor was restored housing costs would not be reduced nor construction speeded up. "I think," he said, "we are in serious danger of going further than is prudent in the reduction of sizes of joists and rafters."

THE EFFECTS OF SHIPPING SHORT-

AGE on the timber import programme have been exaggerated, according to an article in the Financial Times, which also states that "the Government has been visibly impressed by the importance of piling stocks" and "since any marginal supplies bought by the Timber Control are likely to go into stock the outlook for timber users this year will hinge principally on the efforts of private purchasers."

THE CEMENT AND CONCRETE ASSO-

CIATION carried out a series of refresher courses during 1950 to give training in certain new uses and applications of concrete and in the control and production of high quality concrete. It has been decided to offer similar facilities each year and details of the programme arranged for 1951 have been published.

Only a limited number of participants can be accepted for each course and as the demand is likely to be heavy all those wishing to attend the 1951 series are advised to make early application.

A list of the courses is given below details of dates may be had on application.

A. The basic principles of making concrete and controlling its quality. (Engineers and architects.)

B. Uses, properties and methods of making prestressed concrete. (Engineers and supervisors.)

C. Modern methods of concrete road and pavement construction. (Engineers.)

D. Concrete construction. (Supervisors.)

E. The use of concrete in farm buildings. (Architects, engineers, surveyors and officials concerned with farm buildings.)

F. Modern developments in concrete technique. (Engineers and architects.)

MONSIEUR EUGENE FREYSSINET AND PROFESSOR GUSTAVE MAGNEL have accepted honorary membership of the Prestressed Concrete Development Group.

HENRY LINDSAY, LTD., mechanical engineers of Bradford have moved their head offices to Mansfield Road, Bradford, Yorkshire. Telephone Bradford 41384.

L.M.B.A. AREA CHAIRMEN elected for 1951 are as follows: Central No. 1—Mr. W. H. Lugg (W. Lugg & Co.). Central No. 2—Mr. C. K. Tavenor (C. Tavenor & Son Ltd.). Central No. 3—Mr. B. L. Morgan, J.P. (Wm. Loweth & Sons Ltd.). Central No. 4—Mr. L. Luckett (F. Luckett & Sons Ltd.). Central No. 5—Mr. Arthur Styles, 19, Herne Place, S.E.24. Northern—Mr. G. W. Reed (George Reed & Sons Ltd.). North-Eastern—Mr. F. R. Clemens (W. J. Clemens). North-Western—Mr. A. E. A. Prowling (A. E. A. Prowling Ltd.). Southern Area—Mr. D. G. Howard (M. Howard (Mitcham) Ltd.). South-Eastern—Mr. K. J. Pearce (Pearce Bros. (Builders) Ltd.). South-Western—Mr. A. E. King (Kings (B.D.J.) Ltd.).

THE USE OF THE FILM IN TRAINING FOR INDUSTRY will be the subject of a conference to be held in the Hotel Majestic at St. Annes-on-Sea, during the week-end, March 30—April 1.

The programme for Saturday will be divided into three broad sessions dealing respectively with films for training in the Textile, Engineering and Building Industries. Speakers from these three industries will state how they use the films which they will introduce and screen, for training in their own particular industry.

The fee to cover registration and expenses of the Conference itself is One Guinea—payable in advance to the Secretary of the Scientific Film Association. Further information is also available from the same source.

IN THE ARTICLE on new factories at Crawley in the A. & B.N. of January 19, the shuttering and roof lining were described in the text as asbestos—they were in fact celotex as noted on the drawings.

THE ROAD HAULAGE ASSOCIATION has recommended that road haulage rates be increased by 7½ per cent forthwith to meet increased costs of operation incurred from 1st May, 1950 to date. This 7½ per cent covers the advance foreshadowed in the statement issued by the Association on December 11.

THE VICE-PRESIDENT of the Federation of Master Builders, Alderman R. W. Ricketts, speaking at the Annual Meeting of the Sheffield Branch on Tuesday, January 23, expressed the hope that Mr. Hugh Dalton would come to realize that an extended use of the resources of the private-enterprise builder will not only mean more houses going up more quickly, but also a lowering of the present high rate of building costs. Mr. Ricketts felt certain that the combination of housing with the Ministry of Town and Country Planning would mean that the responsible officials of the new Ministry of Local Government and Planning would see that the development charges clauses of the Town and Country Planning Act of 1947 are a serious restriction on the development of new housing estates in this country.

The President commented that although the Ministries responsible for various building operations have been reduced from three to two, the report of the working party into the building industry published during 1950 has been ignored, as that report advised the concentration of the responsibility for building into one Ministry.

TWO LECTURES that will be of interest to architects, engineers and builders will be given shortly in Oxford at the Imperial Forestry Institute's new building in South Parks Road.

Mr. H. A. Cox, Secretary of the British Wood Preserving Association, will lecture on "The Preservation and Proper Use of Timber" on February 6.

Mr. Philip O. Reece, Director of the Timber Development Association, will lecture on "Modern Methods of Timber Construction" on March 6.

Both lectures will begin at 7.15 p.m. and will be free and open to the public.

SOLID FUEL APPLIANCES in new houses are the subject of a letter from the Ministry of Health to all housing authorities in England. The minister is considering how to ensure that private persons building houses shall not adopt less efficient

standards of heating than those laid down for local authority housing.

The type of appliance installed is likely in future to affect the granting of a licence to build. A list of appliances which will qualify for licence was issued by the Coal Utilization in June 1950. These new proposals apply to conversion or adaptation licences.

PAINT AND DESIGN is the subject of a lecture to be given by Dr. L. A. Jordan, Director of the Research Association of British Paint, Colour and Varnish Manufacturers at 6.0 p.m. on February 15, at a meeting of the Society of the Chemical Industry. The meeting will be in the lecture hall of the Institution of Structural Engineers, 11, Upper Belgrave Street, London, S.W.1.

BASIC WAGE RATES in the ballast and sand industry from February 3, 1951 are: Class 1A, 2s. 5d. per hour; class 2, 2s. 4½d. per hour; class 2A, 2s. 4d. per hour; class 3, 2s. 3½d. per hour.

Rates for "C" class licence drivers and watchmen have also been adjusted.

Employers already paying a higher basic wage in accordance with clause 7(7) of the Wages Agreement may be exempted from such portion of the above increase as is already in operation.

Further details on these decisions may be had from the Employers' Secretary, National Joint Council for the Ballast and Sand Industry, 48, Park Street, London W.1. Tel.: Grossverner 8967.

POOR ACOUSTICS of the Banqueting Hall, in Glasgow Municipal Buildings, which measures 90 feet by 45 feet, with approximately 80 feet to the centre of the roof, have been corrected by the installation of an Ultra-Low Level sound distributing system using 21 reproducers.

A full audience of some 800 people can, it is said, now clearly hear all that is spoken from the platform.

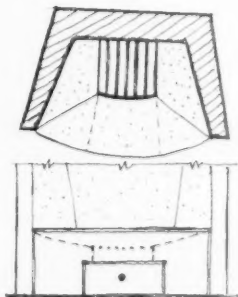
The installation was installed by Philips Electrical Limited after a survey by Messrs. C. W. Cameron of Glasgow.

CORRESPONDENCE

Sir,

Domestic Fuel Appliances No. 2.

In your interesting article on the above subject, I note that the sliding doors to the openable stoves slide back into a groove, though I believe in the "Otto" stove they slide upwards, hence the depth of metal casing over the fire opening and the reduced height of the latter. The comparison of this type of stove (essential, perhaps, in a temporary type of domestic dwelling) with the open fire, seems as usual, not quite fair to the latter. There are open fires on the market much more efficient than the standard popular type. These are deeper front to back and better designed in every way. Why always compare the least efficient open fire with what is a more expensive piece of equipment, which should properly be contrasted to an open fire of similar value. I know of one which has a nearly solid fire brick base, with a small grate in the centre. The fire clay base, sloped down to this, projects beyond the grate front and is segmental on plan: in the centre is a



long narrow ash pan. The overall depth from face of surround to the back of the fire back is approximately 12 in. as against the usual 9 in. or 9½ in. of the popular grate. It can easily be kept in all night if suitably banked up, and easily revived in the morning by pulling out the ash pan and lightly moving the ashes collected on the top of the bottom grate. I have tested this in my own room.

One other point: the article does not mention that some types of openable stove, e.g., "Cozy" and "Courtier" are recommended to be fitted with what is called a box plate (about 22 in. x 12 in.) and a 12 in. x 4 in. flue formed behind it. This consists of an angle frame with a loose door, with hole for outlet from stove. The stove can be quite easily pushed against this and for flue sweeping, just pulled forward and the door removed. This 12 in. x 4 in. flue needs to be streamlined up to the normal 9 in. x 9 in. flue.

Yours faithfully,

(Signed) CHARLES BARKER.

Notes below give basic data of contracts open under locality and authority which are in bold type. References indicate: (a) type of work, (b) address for application. Where no town is stated in the

CONTRACT • NEWS •

address it is the same as the locality given in the heading, (c) deposit, (d) last date for application, (e) last date and time for submission of tenders. Full details of contracts marked * are given in the advertisement section.

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OPEN

BUILDING

BANSTEAD U.C. (a) War damage repairs at 4 houses in Canon Lane and 21 houses at Duncan Road, Burgh Heath. (b) Housing Manager, The Council House, Brighton Road. (c) Feb. 19.

BLABY R.C. (a) (Contract No. 60) 10 houses. (No. 61) 8 houses. (No. 62) 16 houses. (No. 63) 28 houses. (No. 64) 26 houses. (b) Engineer and Surveyor, Council Offices, Narborough, Leics. (c) 1 Gn. each contract. (e) Mar. 5.

BOURNEMOUTH B.C. (a) 18 houses and bungalows, Leybourne Estate. (b) Borough Architect, (Room 98) Town Hall. (c) 2 Gns. (e) Mar. 12.

BOURNEMOUTH B.C. (a) Pair of houses for firemen, Kinson Park Road, Northbourne. (b) Borough Architect, (Room 98) Town Hall. (c) 2 Gns. (e) Feb. 16.

BRADFELD R.C. (a) 6 houses and 10 houses Southend. (b) Council's Clerk, Town Hall, Chambers, Blagrove Street, Reading. (c) 2 Gns. (e) Feb. 24.

CHESTER R.C. (a) 8 houses with drainage, etc., at Saughall. (b) T. C. R. Eaton, 16 White Friars, Chester. (c) 2 Gns. (e) Feb. 28.

CHORLEY B.C. (a) (Contract No. 1) 6 houses, site No. 5. (No. 2) 6 houses, site No. 6. (No. 3) 5 houses, site No. 7. (No. 4) 48 houses, site No. 8, Toxteth Street site. (b) Borough Engineer, Town Hall. (c) 2 Gns. (e) Feb. 17.

CUMBERLAND C.C. (a) Alterations to Gelsdale, Wetherald, Carlisle, to form children's home. Alterations to children's home at Englethwaite. Additions to Sandath Nursery, Penrith. (b) County Architect, 15 Portland Square, Carlisle. (d) Feb. 13.

DERBYSHIRE C.C. (a) Primary school at Inkersall (Contract No. 2), and secondary school at North Wingfield (Contract No. 2). (b) County Architect, County Offices, St. Mary's Gate, Derby. (c) 2 Gns.

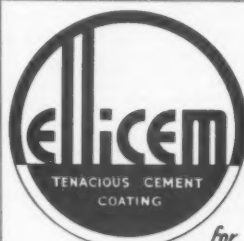
DUNHEVED B.C. (a) Pair of bungalows at Treacrell Estate. (b) Council's Surveyor, Municipal Offices, Western Road, Launceston. (e) Feb. 17.

DURHAM C.C. (a) Adaptation of part of Isolation Hospital at Villa Real, Consett, for use as occupational centre. (b) County Architect, Court Lane. (e) Feb. 19.

EAST GRINSTEAD U.C. (a) 2 blocks of 3 houses and a pair of houses. Block of 4 shops, with two-storey living accommodation above, block of ten garages and approach road, Section 3 of Stonequarry Estate. (b) Council's Surveyor, East Court. (c) 3 Gns. (e) Feb. 24.

ELY U.C. (a) 10 bungalows, Springhead Lane site. (b) Council's Architect, Council Offices, Lynn Road. (c) 1 Gn. (e) Feb. 23.

ELY U.C. (a) 20 houses, West Fen Road site. (b) Council's Architect, Council Offices, Lynn Road. (c) 1 Gn. (e) Feb. 23.



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ESSEX C.C. (a) Adaptation of "Scarletts," Colchester, as an aged persons' hostel. (b) County Architect, County Hall, Chelmsford. (d) Feb. 17. Approx. cost £2,500.

FRERN BARNET U.C. (a) 8 flats in two blocks, Malvern Lodge site. (b) Town Clerk, Town Hall, N.11. (c) 2 Gns. (d) Feb. 16.

FRERN BARNET U.C. (a) 48 flats in 3 four-storey blocks. (b) Town Clerk, Town Hall, N.11. (c) 2 Gns. (d) Feb. 16.

GLOUCESTER R.C. (a) 16 houses with site works and sewage disposal at Quedgeley. (b) Messrs. Carus-Wilson and Demuth, The Cottage, Green Lane, Hardwicke, Glos, with particulars of previous similar works carried out. (d) Feb. 12.

HARROW U.C. (a) Alterations and additions at (1) Roxeth Junior and Infants' Schools, and (2) Vaughan Road Junior and Infants' Schools. (b) Engineer and Surveyor, Council Offices, Stanmore. (c) £2 each contract. (e) Mar. 1.

HERTFORD R.C. (a) 12 houses at Branfield. (b) Council's Clerk, 20 Castle Street. (c) £3.

HORNCHURCH U.C. (a) Garage extensions and provision of workshop at Council Depot. (b) Engineer and Surveyor, Council Offices, Billet Lane. (c) 2 Gns. (e) Feb. 19.

HOUGHTON-LE-SPRING, U.C. (a) Supply and delivery of building materials for erection of 194 dwellings. (b) Engineer and Surveyor, Scruton House, Newbottle Street. (c) Feb. 17.

ILFORD B.C. (a) Wood workshop and metal workshop in two-storeys at Newbury Park School. (b) Borough Engineer, Town Hall. (c) 5 Gns. (e) Feb. 27. Approx. cost £7,000.

LEEDS C.C. (a) 44 houses and 12 flats, Raylands Way, 84 houses and 8 flats, Cranmore Crescent, 22 houses at Cranmore Rise, 36 three-storey flats, Saxton Road, 12 three-storey flats, Langfield View, 60 three-storey flats at Rosgill Drive. (b) City Architect, Priestley House, Quarry Hill. (c) 2 Gns. each contract. (e) Feb. 19.

LIVERPOOL C.C. (a) Extension of College of Technology. (b) City Architect, Blackburn Chambers, Dale Street, Kingsway. (c) 2 Gns. (e) Feb. 17.

NORWICH C.C. (a) 354 dwellings, South Park Avenue Estate (14 groups). (b) City Architect, City Hall. (c) £1. (e) Feb. 19.

OGMORE AND GARW U.C. (a) 32 houses, Evanstown site, Gilfach Goch. (b) Council's Surveyor, Council Offices, Brynmenyn. (c) 3 Gns. (e) Feb. 19.

READING B.C. (a) Alteration works at Nursery School, Blagdon Road. (b) Borough Architect, Town Hall. (c) Feb. 19.

PEBBLESHIRE C.C. (a) 24 houses, Walkburn. Separate trades. (b) County Clerk, County Buildings, Peebles. (d) Feb. 10.

ROSS AND CROMARTY C.C. (a) 8 houses with site works, Garve, 8 houses with site works, Dornie, 9 houses and 1 house at Bennadrove, 10 houses at Lochs Cleascro. (b) County Architect, The Old Academy, Dingwall. (d) Feb. 17.

RISCA U.C. (a) 8 houses in four blocks, North Road, Pontywan, Cross Keys. (b) Engineer and Surveyor, Council Offices. (c) 3 Gns. (e) Feb. 27.

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SOUTHWELL R.C. (a) 20 houses with roads, sewers, etc., Main Street, Lowdham. 20 bungalows, Church Street, Edwinstowe, roads, sewers, etc. (b) Council's Surveyor, 8 Westgate, Southwell, Notts. (c) 2 Gns. each site. (e) Feb. 22.

***STATES OF GUERNSEY.** (a) 14 houses, Rue de Grans, St. Martin's. (b) States Engineer, States Office Annexe. (c) 2 Gns. (e) Feb. 26. See page 29.

TYRONE COUNTY WELFARE COMMITTEE. (a) Alterations and additions to stables and gate lodge at Greenfield Old People's Home, Strabane. (b) Messrs. McCarthy & Lilburn, Scottish Provident Buildings, Belfast. (c) 5 Gns. (e) Feb. 19.

WEST BROMWICH B.C. (a) 8 shops and 4 flats. (b) Borough Engineer, Town Hall. (c) £2. (e) Feb. 28.

WEST BROMWICH B.C. (a) 46 houses and flats. (b) Architect's Dept., Hardware Street. (c) £2. (e) Feb. 17.

WEST RIDING C.C. (a) Extensions to Maunsell Crescent Infants' School, Ecclesfield. (b) County Architect, "Bishopgarth," Westfield Road, Wakefield. (c) 2 Gns. (e) Mar. 5.

WEST RIDING C.C. (a) Extensions to ambulance depot, Bond Lane, Settle. (b) County Architect, "Bishopgarth," Westfield Road, Wakefield. (c) 2 Gns. (e) Feb. 27.

WEST RIDING C.C. (a) Alterations to children's home at Greenawn, Goole. (b) County Architect, "Bishopgarth," Westfield Road, Wakefield. (c) 2 Gns. (e) Feb. 22.

WESTON-SUPER-MARE B.C. (a) 60 flats, Summerlands Estate. (b) Borough Engineer, Town Hall. (c) 2 Gns. (e) Mar. 17.

WEYMOUTH AND MELCOMBE REGIS B.C. (a) Conversion of old fire station into offices and conveniences. (b) Borough Engineer, 6 Pulteney Buildings, Weymouth. (c) 2 Gns. (e) Feb. 23.

WILLITON R.C. (a) 6 houses at Porlock. (b) Engineer and Surveyor, Council Offices, Fore Street. (c) 2 Gns. (e) Feb. 26.

WINCANTON R.C. (a) Public conveniences at Milborne Port. (b) Anthony Medlycott, 14 Hollydale Drive, Bromley. (e) Feb. 21.

PLACED

Notes on contracts placed state locality and authority in bold type with (1) type of work, (2) site, (3) name of contractor and address, (4) amount of tender or estimate. † denotes that work may not start pending final acceptance, or obtaining of licence, or modification of tenders, etc.

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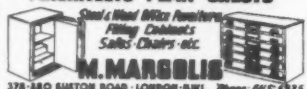
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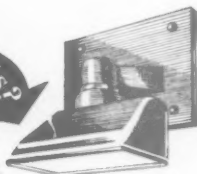
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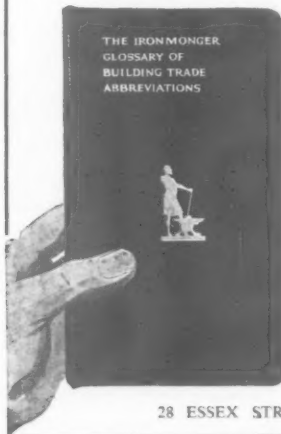
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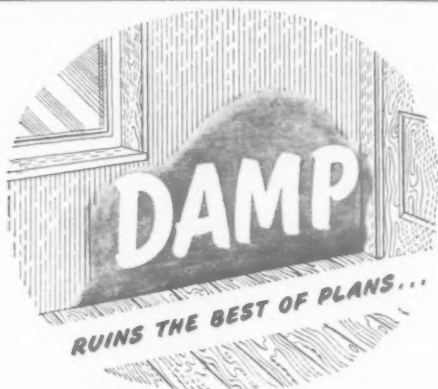
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APPOINTMENTS

LONDON COUNTY COUNCIL.

APPLICATIONS are invited for positions of ARCHITECTURAL ASSISTANT (salaries up to £800 a year) in the Housing and Valuation Department. Commencing salaries will be determined according to qualifications and experience. Engagement will be subject to the Local Government Superannuation Acts, and successful candidates will be eligible for consideration for appointment to the permanent staff on the occurrence of vacancies.

Successful candidates will be required to assist in the design, layout and preparation of working drawings for housing schemes (cottages and multi-storey flats) and will be employed in the Housing Architect's Division.

Forms of application may be obtained from the Director of Housing, The County Hall, Westminster Bridge, S.E.1 (stamped addressed envelope required and quote reference A.A.1). Conveyancing disqualifies. (816). [5101]

CROWN AGENTS FOR THE COLONIES.

QUANTITY SURVEYOR required by the Gold Coast Government for the Public Works Department for two tours of 18 to 24 months each with prospect of permanency. Commencing salary, including overseas pay, according to qualifications and experience in scale £660 to £1,200 a year, plus cost of living allowance up to £150 a year. Outfit allowance up to £60. Free passages. Liberal leave on full salary. Candidates must have had considerable experience in preparing bills of quantities and contract documents for buildings of large and medium size.

Apply at once by letter, stating age, full names in block letters and full particulars of qualifications and experience and mentioning this paper to the Crown Agents for the Colonies, 4 Millbank, London, S.W.1, quoting M.25063.A on both letter and envelope. The Crown Agents cannot undertake to acknowledge all applications and will communicate only with applicants selected for further consideration. [5223]

LONDON COUNTY COUNCIL.

QUANTITY SURVEYORS' ASSISTANTS required in Housing and Valuation Department for work in connection with development of cottage estates at salaries up to £700 for senior appointments and up to £580 for junior positions, according to qualifications and experience.

Duties include measurement of work in construction of houses, roads and sewers, preparation of interim valuations, measurement and adjustment of sub-contracts, small estimates, measurement of variations.

Forms of application from Director of Housing and Valuer, County Hall, S.E.1. Stamped addressed envelope required. Quote QS/21. (88). [5195]

LONDON COUNTY COUNCIL.

ARCHITECT'S DEPARTMENT.

CLERKS OF WORKS required for erection of schools including a comprehensive high school. Salaries up to £550 a year for normal school work and up to £660 a year for comprehensive high school. Applicants should have had reinforced concrete and steelwork experience on major works. Application form from Architect to the Council (AR.EK/CW), County Hall, Westminster Bridge, S.E.1 enclosing stamped addressed foolscap envelope. (99). [5219]

MINISTRY OF WORKS.

SENIOR ARCHITECTURAL ASSISTANTS are required in the Chief Architect's Division who have had first class experience and who are capable of supervising drawing office staffs. Vacancies exist in London, Edinburgh, Newcastle, Leeds, Birmingham, Manchester and Capenhurst (Cheshire). Assistants will be employed on a wide variety of Public Buildings, including Atomic Energy and other research Establishments. Telephone Exchange, Office Buildings, etc. London salary, £625-£750 per annum. Salary elsewhere is slightly lower.

Although these are not established posts, many have long term possibilities. Apply in writing, giving full details of age, qualifications and experience, to Mr. W. A. Rutter, C.B.E., F.R.I.B.A., Chief Architect, Ministry of Works, Abell House, John Islip Street, Westminster, S.W.1, quoting reference W.G.10/BE. Locality preferred should be stated. [5179]

LANCASHIRE COUNTY COUNCIL.

QUALIFIED SURVEYOR required in the ESTATE DEVELOPMENT SECTION of the County Planning Department. Salary £595-£660. The Section is attached to Headquarters' Office and carries out (in co-operation with County District Councils) schemes for accommodating overspill population from urban areas by developing existing townships.

Preference given to applicants with experience of estate management and levelling and surveying of large housing sites.

Applications giving names, addresses and qualifications of two referees (where possible one should be present employer) to reach the County Planning Officer, County Offices, Preston, by 17th February. [5209]

BOROUGH OF WORTHING.

APPOINTMENT OF SENIOR ARCHITECTURAL ASSISTANT.

APPLICATIONS are invited for the appointment of a SENIOR ARCHITECTURAL ASSISTANT on the permanent establishment of the Borough Engineer and Surveyor's Department at a salary in accordance with A.P.T. VI (£595-£660).

Candidates should preferably be Associates of the Royal Institute of British Architects and should have had a sound experience in the preparation of Drawings and Specifications for Local Authority building contracts.

The appointment will be subject to the National Service of Conditions of Service of Local Government Officers, to the Local Government Superannuation Act, 1917, and to the successful candidate passing satisfactorily a medical examination.

The Council will assist the successful applicant to obtain housing accommodation, if necessary.

Applications, endorsed "Senior Architectural Assistant, Grade VI," stating age, status, qualifications, present and previous appointments and experience with dates, and accompanied by copies of three recent testimonials, should be addressed to the Borough Engineer and Surveyor, Town Hall, Worthing, and should be received by him not later than 12 noon on Friday the 16th February, 1951. ERNEST G. TOWNSEND, Town Clerk.

Town Hall, Worthing.
26th January, 1951. [5210]

METROPOLITAN BOROUGH OF SHOREDITCH.

SENIOR ASSISTANT ARCHITECT.

APPLICATIONS are invited for the appointment of SENIOR ASSISTANT ARCHITECT on the permanent staff of the Council at a salary in accordance with Grade VII of the National Scale of Salaries, £665-£740 per annum.

Applicants should have had a recognised architectural training and be competent to undertake the design and construction of municipal buildings, including multi-storey flats.

Preference will be given to candidates with a recognised architectural qualification.

The appointment will be subject to medical examination, the Council's Superannuation Scheme and General Conditions of Service.

The Council will make available to the successful applicant a three-bedroom house now in course of erection.

Applications, stating age, training and experience, together with the names of two persons to whom reference may be made, should be submitted to the undersigned not later than Thursday, 15th February, 1951, and endorsed "Senior Assistant Architect."

C. A. JAMES, Town Clerk
Town Hall, Old Street, E.C.1.
31st January, 1951. [5222]

LANCASHIRE COUNTY COUNCIL.

APPLICATIONS are invited for the following appointments in the County Planning Department:

(a) SECTIONAL PLANNING OFFICERS at Accrington, Liverpool and Wigan (A.P.T. VIII, £685-£760), and Blackpool (A.P.T. VII, £635-£710), to be responsible for directing the work of technical staff. Considerable experience essential in Development Plan preparation.

(b) PLANNING ASSISTANTS at Ulverston (A.P.T. I-V, £390-£570), Blackpool, Accrington, Liverpool, Wigan and Manchester (A.P.T. I-VI, £390-£660). Duties mainly as follows:

Engineering — preparation of town maps as required by the 1947 Act, and dealing with problems, requiring civil engineering experience.

Architecture — design and preparation of detailed layouts for housing schemes, village extensions and central area improvements.

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Applicants for Grades I-IV should possess a university degree or the intermediate certificate of an appropriate professional body, and for the higher grades one or more of the following, or their equivalent:

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(c) PLANNING ASSISTANT (RURAL) at Preston (Headquarters) (A.P.T. I-VI, £390-£660). Duties mainly preparation of Development Plan for rural areas. Candidates should possess or be studying for a recognised planning or land agency qualification.

Salary of appointments under (b) and (c) commensurate with qualifications and experience.

Applications stating appointments applied for and giving names, addresses and qualifications of two referees (preferably one should be present employer) to reach the County Planning Officer, County Offices, Preston, by 17th February. [5213]

LONDON COUNTY COUNCIL.

ARCHITECT'S DEPARTMENT.

BUILDING SURVEYORS

APPLICATIONS are invited for positions of TECHNICAL ASSISTANT (salaries up to £800) on the surveying staff of the Architect's Department to deal with the temporary administration of the London Building Acts and other statutes (including means of escape, safety precautions in buildings licensed for public entertainment and general building regulations). Candidates should have a knowledge of building construction and preference will be given to those taking R.I.C.S. qualification. The positions will be superannuable. Application forms from the Architect (AR.EK/BR) County Hall, S.E.1, enclosing stamped addressed envelope to be returned by 28th February, 1951, (98). [5220]

COUNTY BOROUGH OF GATESHEAD.

CHIEF ARCHITECT'S DEPARTMENT.

APPLICATIONS are invited for the following permanent appointments in the Chief Architect's Department:

ASSISTANT ARCHITECTS: Grade V (£520-£570).

ARCHITECTURAL ASSISTANTS: Grade II to IV: (£420-£465), (£450-£495), (£480-£525) according to experience.

ASSISTANT HEATING AND VENTILATING ENGINEER: Grade I to IV: (£390-£525) according to qualifications and experience.

ESTIMATING AND COST CLERK: Grade IV (£480-£525).

Full particulars of the conditions attaching to each appointment can be obtained from the Chief Architect, and applications on forms provided should be returned to H. J. Cook, A.R.I.B.A., M.I.Struct.E., Chief Architect, Municipal Buildings, Swinburn Street, Gateshead, not later than Monday, 19th February, 1951.

J. W. PORTER, Town Clerk.
Town Hall, Gateshead.
31st January, 1951. [5221]

NATIONAL COAL BOARD.

NORTH EASTERN DIVISION.
ARCHITECTURAL STAFF.

APPLICATIONS are invited for the following appointments in the Architect's Department of this Division at Doncaster, near Doncaster.

ARCHITECTURAL ASSISTANT Grade I — Salary scale £410 x 20 to £550 per annum (men) and £340 x 15 to £445 per annum (women).

Applicants should be student R.I.B.A. and training for the Intermediate Examination. Applicants should have some experience in the preparation of Sketch Plans, Working Drawings and Specifications and have a good knowledge of building construction. Commencing salary according to knowledge and experience.

ARCHITECTURAL ASSISTANT Grade II — Salary scale £300 x 20 to £440 per annum (men) and £247 x 15 to £352 per annum (women).

Applicants should be probationers of the R.I.B.A. Commencing salary according to knowledge and experience.

CLERKS OF WORKS Grade II—Salary scale £400 x 25 to £550 per annum. Applicants should be Clerks of Works preferably with experience of Industrial and Welfare Buildings. They should be experienced in the supervision of steel and reinforced concrete structures and have a knowledge of sewage disposal plants and the heating, ventilating and electrical plants and services connected with Industrial and Welfare Buildings. Commencing salary according to knowledge and experience.

Applicants for all the above appointments should be made on Form S.S.A. obtainable from the Establishments Officer, National Coal Board, North Eastern Division, Rammoor Hall, Belgrave Road, Sheffield, 10. 15224

CITY OF BATH.

CITY PLANNING DEPARTMENT.

APPLICATIONS are invited for the appointment of a GENERAL ARCHITECTURAL ASSISTANT, Grade IV (£480-£525 per annum). Preference will be given to candidates with experience in the design and supervision of housing estates or domestic buildings.

The appointment will be subject to the provisions of the Local Government Superannuation Act, 1937, and the successful candidate will be required to pass a medical examination.

Applications, stating age, qualifications and experience, together with the names and addresses of three referees, should be sent to the City Planning Officer, 2, Prince's Buildings, Bath, not later than 17th February, 1951. 15227

COMPETITION

ARCHITECTURAL COMPETITION
for the
HERZL MEMORIAL ON MOUNT HERZL,
JERUSALEM, ISRAEL.

THE Executive of the World Zionist Organisation, in conjunction with the Board of Trustees for Herzl's Tomb, invite Jewish Architects, Sculptors and Planners throughout the world to submit designs in competition for the proposed Memorial to Herzl's Tomb, the park and the traffic lay-out of the immediate vicinity.

Assessors:—

1. B. Locker — Chairman, Jewish Agency, Jerusalem.
2. A. Berachyahu, Engineer — Jewish National Fund, Jerusalem.
3. Dr. L. Lauterbach — Secretary of the Zionist Executive, Jerusalem.
4. J. Metrikin, Architect — Jewish Agency, Jerusalem.
5. J. Pinkerfeld, Architect — Tel-Aviv.
6. Professor Y. Rainer, Architect — Haifa.
7. H. Rau, Architect — Jerusalem.
8. J. Weitz — Jerusalem.
9. N. J. Aslan, A.R.I.B.A., A.M.T.P.I.—London.

Prize:—

11 premiums totalling £5,000.
Last day for submitting designs, 21st June, 1951.
Schedule of conditions and particulars may be obtained on application to The Secretary, The London Committee, Herzl Memorial, 77 Great Russell Street, London, W.C.1, enclosing a deposit of £2. 2s. 0d.

(In view of the religious character of the project this Competition has been restricted to members of the Jewish faith). 15226

CONTRACTS

CWMBRAN DEVELOPMENT CORPORATION.

CIVIL ENGINEERING AND/OR BUILDING WORKS.

THE Development Corporation propose to maintain lists of Contractors capable of carrying out, and who will from time to time be prepared to tender for the following categories of work:

(1) CIVIL ENGINEERING

- (i) £25,000 or less.
- (ii) More than £25,000 and not exceeding £50,000.
- (iii) More than £50,000 and not exceeding £150,000.
- (iv) Over £150,000.

(2) BUILDING

- (i) £15,000 or less.
- (ii) More than £15,000 and less than £30,000.
- (iii) More than £30,000 and less than £75,000.
- (iv) Over £75,000.

(3) BUILDING REPAIRS AND MAINTENANCE ON A JOBBING BASIS.

Invitations to tender will not normally be publicly advertised in the Press. Firms will from time to time be selected from the approved lists of Contractors and invited to tender for specific works.

Contractors who wish to be placed on one or more of the lists of approved Contractors should make application in writing to the General Manager, Cwmbran Development Corporation, Town Hall, Corn Street, Newport, Mon., from whom the form of application can be obtained. 15217

BOROUGH OF MACCLESFIELD.

SCHEME 5K—ERECTION OF 23 TRADITIONAL HOUSES AT WESTON.

TENDERS are invited for the erection of 23 FOUR-BEDROOM HOUSES in four blocks of two and five blocks of three, at WESTON.

Bills of Quantities and Forms of Tender may be obtained from the Office of the Borough Architect, 3 Jordangate, Macclesfield, on or after Monday, 5th February, 1951, on payment of a deposit of £2. 2s., which will be refunded on receipt of a bona fide tender, or on the return of all documents, unmarked, within seven days of their receipt by the depositor.

Tenders in plain sealed envelopes (which will be provided) are to be delivered to the Office of the undersigned not later than 10 a.m. on Monday, 9th February, 1951. The Corporation does not undertake to accept the lowest or any tender.

WALTER ISAAC, Town Clerk.
Town Hall, Macclesfield.
31st January, 1951. 15215

COUNTY BOROUGH OF BIRKENHEAD.

EDUCATION COMMITTEE.

NEW TECHNICAL COLLEGE—
SUPERSTRUCTURE.

TENDERS are invited from Registered Building Contractors for the erection of the SUPERSTRUCTURE OF THE NEW TECHNICAL COLLEGE, Borough Road, Birkenhead.

The foundation work up to ground level, Pitched Roads, Sewers and other site works have been the subject of a separate Contract and are now nearing completion.

Specifications, Bills of Quantities, and Forms of Tender may be obtained on or after February 12th, 1951, from the Architects, Messrs. Wiliam & David, F.F.R.I.B.A., Cunard Building, Liverpool, 3, on payment of a deposit of three guineas, which will be returned on receipt of a bona-fide tender.

Tenders must be firms of standing and be prepared to give a Bond jointly with a Bank or approved Insurance or Guarantee Company, for the due performance of the Contract, in the event of their tender being accepted.

Drawings may be inspected at the Architects' Office on or after February 12th, 1951.

Tenders must be sent in the official envelope provided (which must not bear any name or mark indicating the sender), sealed and endorsed "Tender for Superstructure—New Technical College" and received at my Office by Postal Delivery not later than 10 a.m. on Friday, 9th March, 1951.

The acceptance of any tender is subject to approval and the Corporation do not bind themselves to accept the lowest or any tender. Tenders delivered by hand will not be accepted and tenders which do not comply with these instructions will not be considered.

DONALD P. HEATH, Town Clerk.
Town Hall, Birkenhead. 15212

STATES OF GUERNSEY.

HOUSING AUTHORITY.

TENDERS are invited for the erection of 14 (FOURTEEN) HOUSES on a site at Rue des Grons, St. Martin's, Guernsey.

Plans, Specifications and Forms of Tender may be obtained at the office of the undersigned upon payment of Two Guineas (£2. 2s. 0d.), which will be refunded on the receipt of a bona-fide tender and the return of all plans and documents.

Tenders, in sealed envelopes, addressed to the President, States Housing Authority, Hadley House, Leclaire Street, St. Peter Port, Guernsey, and endorsed "Tender for Houses, Rue des Grons," must be delivered at the office of the Authority not later than noon on Monday, the 26th February, 1951.

G. HEGGGS, States Engineer.
States Office Ancrage, Guernsey.
26th January, 1951. 15207

ARCHITECTURAL APPOINTMENTS
VACANT

ARCHITECTURAL assistant required (Inter. Standard) interesting and individual work.—Apply C. E. Ware & Son, 20 Richmond Road, Exeter. 15214

ARCHITECT, experienced charge assistant for busy general practice in Scotland, Border County Town, with private practice experience, capable of producing quickly constructional detail drawings. With view to partnership for suitable man, preferably over 30. Address stating full particulars of experience, age, when free, and salary expected.—Box 8431, The Architect and Building News. 15216

ASSISTANTS wanted for hospitals, schools and planning work.—F. W. B. Charles, B.Arch., A.R.I.B.A., 3 Great Street, Edinburgh, 1. 15218

SITUATIONS VACANT

ARCHITECTURAL Draughtsman required immediately interesting work. 5-day week.—Apply in writing, stating age and experience, to the Austin Motor Co. Ltd., Longbridge, Birmingham. (Personnel Dept.). 15158

DESIGNER required for drawing office of well-known reinforced concrete flooring contractors.—Apply in writing, stating age, qualifications and experience, to Smith's Fireproof Floors, Imber Court, East Molesey, Surrey. 15159

ARCHITECTURAL Draughtsman required for Architect's Department of large Iron and Steel Works. Applicants should be aged 22-30 years, should be capable of preparing working drawings with a minimum supervision, sound knowledge of modern construction and building services essential. Some experience of industrial work preferred.—Apply direct to Chief Designing Engineer, Engineering Drawing Office, Appleby-Frodingham Steel Co., Branch of the United Steel Co. Ltd., Scunthorpe, Lincs. 15206

FOR SALE

NISSEN Type Huia, ex-Government stock, reconditioned and supplied ready for erection. All sizes in 6ft. multiples, 36ft. x 16ft., £71 10s. 0d. and £59 8s. 0d.; 24ft. x 16ft., £50 12s. 0d. and £41 16s. 0d.; 22ft. x 16ft., £134 4s. 0d. and £106 14s. 0d. Delivered U.K. Ply-boarded Huia and other buildings. Some 24ft. span Nissen.—Write, call or telephone, Universal Supplies (Belvedere) Ltd., Dept. 32, Crabtree Manorway, Belvedere, Kent. Tel. No. Erith 2948. 15037

STEEL framed, single story, Industrial Buildings for sale, complete with covering, 184ft. x 184ft., 180ft. x 100ft., and 180ft. x 84ft.—Sharman, Davers's Moulding Mills Ltd., 60 Fowall Road, Dalton, E.B. 15036

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TWO genuine Adam Fireplaces, perfect condition, discreetly arranged gas heating if desired.—Wheway, Bridgote, Banbury Road, Stratford-on-Avon. 15211

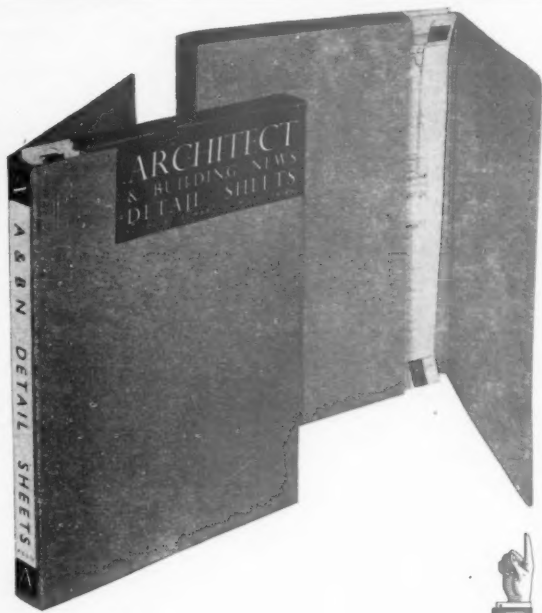
MISCELLANEOUS

"OVERSEAS APPOINTMENTS," bi-monthly newsletter containing conditions and opportunities abroad.—Send synopsis for sample copy to Overseas Architects Service, 5 Welldon Crescent, Harrow. 15225

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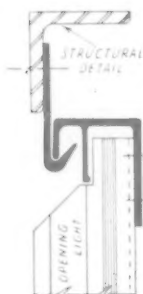
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FREE PRESS LTD., Newspaper House, High Street, High Wycombe, for the Publishers, ILIFFE & SONS LTD., Dorset House, Stamford Street, S.E.1.

Two revolutionary inventions affecting opening lights in ALUMINEX patent glazing

It has been said that one test of a good invention is whether the laymen will say — after it has been invented — that it is obvious. Here is a brief account of two such deceptively simple inventions that put Aluminex Patent Glazing opening lights in a class on their own for operational efficiency.

An opening light in Aluminex Patent Glazing is hung on a single hinge: a continuous hook hinge that extends the whole length of the window. The hinge is shown in the accompanying sketch. It will be seen from its simple shape that it cannot bind as ordinary knuckle hinges often do, nor does it suffer from other limitations of the ordinary hinge. The Aluminex hook hinge, being continuous, gives uniform support to the frame along its entire length. This means that the framework of the lights hung on these hinges may be constructed throughout of much lighter than normal metal sections.



This drawing shows the design of the continuous hinge used on the Aluminex opening lights. The head weathering makes flashings unnecessary.

It will immediately be seen how materially the invention of this hinge affected the progress of patent glazing. The hinge formed a natural addition to the other Aluminex components because these elements — the glazing bar, the continuous glazing cover strip, the zed weathering detail and the shoe — were all of similarly simple and functional design. (They were indeed the results of a basic re-thinking of patent glazing.)

Three advantages of the continuous hinge

The exact form in which the continuous hinge was incorporated in the Aluminex system (again, as the diagram shows) brought three additional advantages. First, the hinge solved the problem of mounting long and continuous lights without hinges or hinge pins. Second, in the form adopted it provided an integral and draughtproof head weathering which made flashings unnecessary. Third, the hinge also provided, by reason of its open and simple form, a means of accommodating without strain or loss of alignment, the small structural variations which occur in practice, but which always tend to impair the free action of ordinary hinges.



Telex gear here operates continuous, tip-hung Aluminex ventilators in vertical sidewall glazing of a factory in Essex.

The continuous hinge allowed Aluminex engineers to build opening lights of 200 ft. length as a matter of course, and even greater lengths where circumstances demanded it, or where the opening gear could be power-operated.

New operating gear

At this point we must take into account operating gear. And it is precisely in this field that Aluminex was again fortunate in adding to itself a product of new thinking similar to itself in intelligent simplicity. This was the Telex opening gear. It first came into its own in the late war. At one time it was performing such diverse tasks as moving the tail fins of R.A.F. aircraft and swinging the control turrets of naval guns. Today its essential characteristics are the same as those which won acceptance for it during the war, although since then, it has been refined and improved in most particulars. Telex is a threaded cable which operates through small, well-designed gear boxes and is capable of transmitting movement over great distances by almost any route. It can be mounted on lighter metal sections than is the case with tension rod gearing and its mechanical efficiency is such that opening lights 200 ft. in length may be operated with very little effort. In addition, the costs of manufacture and erection are lower than with tension rod gearing. As a whole, therefore, the Telex opening light operating gear is a natural counter-

part of the Aluminex opening light hung on the continuous hook hinge.

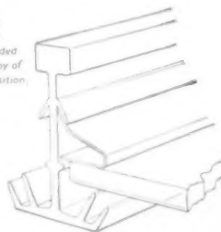
The general character of the Aluminex patent glazing system of which these two inventions now form part, may be summarised as follows:

It consists of extruded aluminium alloy glazing bars of great strength and resistance to corrosion. Glass panes are clipped to these bars by means of continuous rolled glazing cover strips, also made of aluminium alloy. The other specially designed fittings are the zed weathering detail and the glass shoe.

Great areas may be glazed by this method. The north windows of the Bradburn hangar at Filton measure 1,052 ft. by 50 ft. Aluminex may be double-glazed to provide a cladding which

has high insulating properties. The appearance of the glazing is neat and light, according well with contemporary styles of industrial architecture.

This Aluminex patent glazing bar is of extruded aluminium alloy of special composition. Here is seen one glazing cover strip holding a pane of glass in position on the bar.



The Architect who turns to Aluminex Patent Glazing has at his service a method of architectural cladding capable of versatile applications. It is an accepted system yet remains susceptible to imaginative development. The Company extends its fullest co-operation to all Architects who wish to discuss new applications of Aluminex.

For further information please communicate with the **Aluminex Division of Williams & Williams Limited, Reliance Works, Chester, Telephone: Chester 24624 (10 lines).** Telegrams: Reliance, Chester. And at Victoria House, Southampton Row, London, W.C.1. Telephone: H01born 9861.

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